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ABSTRACT

This is a comparative study presenting data for 12 campuses of the City University of New York. The primary focus is upon the first freshman class under the Open Admissions Program that began in September 1970. Outcomes for this class are considered over a period of three semesters. The 1970 and 1971 freshmen are also compared with regard to their performance in the first term of their freshman year. The background of Open Admissions is described, and the major features of the program are discussed, with social and economic characteristics of the students also considered. Students are compared (within colleges and across colleges) on two major criteria of academic success: grade-point averages and rates of credit generation. A similar set of analyses are carried out with regard to the effects of remedial and compensatory education programs. Dropouts and nondropouts are compared with regard to the characteristics of their academic performance. Attrition data for the University are compared with national findings. The 1970 and 1971 freshmen classes are compared with regard to indices of academic success and the effects of remedial programs. (Author/MJM)

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OPEN ADMISSIONS AT THE CITY UNIVERSITY OF NEW YORK:

A DESCRIPTION OF ACADEMIC OUTCOMES

AFTER THREE SEMESTERS

By

David E. Lavin and Barbara Jacobson

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ABSTRACT

Open Admissions at the City University of New York: A Description of Academic Outcomes After Three Semesters

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This is a comparative study presenting data for 12 campuses of the City University of New York. The primary focus is upon the first freshman class which entered under the Open Admissions Program which began September, 1970. Outcomes for this class are considered over a period of three semesters. The 1970 and 1971 freshmen are also compared with regard to their performance in the first term of their freshman year.

The background of Open Admissions is described, and the major features of the program are discussed. The social and economic characteristics of the students are also considered.

Students are compared (within colleges and across colleges) on two major criteria of academic success: (1) Grade point averages; (2) Rates of credit generation. A similar set of analyses are carried out with regard to the effects of remedial and compensatory education programs. These analyses are tentative because the data are preliminary and do not cover a long enough time period.

Next, attrition is considered. Dropouts and non-dropouts are compared with regard to the characteristics of their academic performance. Attrition data for the University are compared with national findings.

Finally, the 1970 and 1971 freshmen classes are compared with regard to indices of academic success and the effects of remedial programs.

This report is essentially descriptive rather than interpretive. Future reports will become increasingly interpretive, in the sense that the focus will be upon the reasons for observed differences among students and among campuses.

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PREFACE

At the request of the Office of the Chancellor, Professors Lavin and Jacobson undertook a formidable assignment. In order to proceed with their evaluation research upon the Open Admissions experience at the colleges of the City University of New York, first they had to create a student data base. Student performance records were not kept centrally at CUNY in 1970; and most of the colleges did not have computerized information systems. Because of the conditions found during these early data-gathering efforts, errors and omissions were not infrequent. Hence, Drs. Lavin and Jacobson, in cooperation with the registrars' and data processing staffs at the colleges, had to undertake the laborious tasks of collecting and editing, correcting and updating, tens of thousands of student records.

Now there is an office whose function it is to maintain a student data base centrally; and, with each succeeding semester, its records will become more accurate and more complete. However, the need for basic statistics regarding Open Admissions was such that, rather than wait for the further development of this student data base, the statistics already gathered had to be made available. Accordingly, Professors Lavin and Jacobson were asked to prepare a report, devoid of interpretative comment, on the three-semester experience of 1970 enrollees and the one-semester experience of 1971 enrollees. This they have done. In early summer, 1973, they will produce a report on the four-semester experience of 1970 enrollees and the two-semester experience of 1971 enrollees. Similar reports will be issued in the future.

These reports are primarily descriptive. They are merely a beginning in the University's effort to conduct evaluation research upon its programs. Other efforts are planned, whose analyses in greater depth should provide results with greater meaning for program and policy development. It is within this context that this report by Professors Lavin and Jacobson should be viewed.

Lawrence Podell, Ph.D.
University Dean for
Program and Policy
Research

ACKNOWLEDGEMENTS

Research projects as large and complex as this could never be conducted successfully without the contributions of many individuals. It is difficult to communicate the full measure of their help, and some are perhaps unaware of how significant their support has been. We wish to acknowledge to them and to others our appreciation of their efforts.

Professor Max Weiner furnished resources which he was not obligated to provide. This enabled us to begin the task of assembling the data in intelligible form. He has always been available for consultation which he freely gave in a gracious and enthusiastic manner.

Professors Murray Hausknecht, Rolf Meyersohn, Peter Read, and Benjamin Ringer, our colleagues in sociology, have stimulated us by sharing their own genuine interest in open admissions evaluation and by their willingness to exchange ideas as this project has progressed.

We are especially indebted to President Harold Proshansky of the University Center and Graduate School. His wisdom and intimate knowledge of the City University have been invaluable in guiding us through several difficult periods. His support was particularly important at times when we felt discouragement.

The initial data collection operations for this study were facilitated by the generous cooperation of George Finn of the University Applications Processing Center.

Marianne Williams and Ena Malone merged and collated the different sources of data into a master file.

The superb cooperation of George Elder and his associates at the City College Computation Center made it possible to prepare the data for analysis.

Professor John Kendrick of Yale University provided first rate consultation in the development of programming and data processing strategies. He furnished this assistance when we were under extreme time pressures, and he provided solutions which enabled us to generate statistical tables in a rapid and efficient manner.

Dean Lawrence Podell provided many strategic suggestions which were beneficial in the writing of the report. In addition, he made several helpful interventions which facilitated its completion.

We appreciate very much the patience of Chancellor Kibbee, Deputy Chancellor Hyman, and Vice Chancellor Healy. They have understood the problems connected with the conduct of this project in a way which has been encouraging to us.

Our immediate staff has been dedicated beyond what could have been expected. We are especially grateful to Marie Kappell, Pedro Pedraza, Florence Sponder, Sarah Haber, Leona Brisotti, Leon Schwartz, Jeanette Anduze, and Jane Mottus.

Innumerable individuals on each of the CUNY campuses-- Registrars, Data Processing Managers, and Institutional Research Directors provided help which was indispensable.

Finally, and of great importance, we are appreciative of the support of the Esso Education Foundation. It has recognized the importance of the open admissions experiment by furnishing a portion of the financial support for this continuing project.

Table of Contents

Page

PREFACE

ACKNOWLEDGEMENTS

CHAPTER 1: INTRODUCTION
- Background of Open Admissions 1
- The CUNY Students: Overview of Social and Economic Characteristics. 3
- Table A - Ethnic Census of Matriculated First-Time Freshmen . . 4
- Focus of this Report 6
- Organization of the Report 8
- Limitations of the Data 8
- Scope of Future Reports 10
- A Note on Percentage Differences 10

CHAPTER 2: PERFORMANCE ON CRITERIA OF ACADEMIC SUCCESS
- Introduction 11
- COMPARISONS OF SENIOR COLLEGES: LEVEL B STUDENTS
  1. Credit Generation 12
  2. Summary of Credit Generation 16
  3. Grade Point Average 17
  4. Credit Generation and Grade Point Average Considered Simultaneously 19
  5. Summary for Level B Students 20
- COMPARISONS OF SENIOR COLLEGES: LEVEL A STUDENTS
  1. Credit Generation 20
  2. Summary of Credit Generation 23
  3. Grade Point Average 23
  4. Summary of Grade Point Average 25
  5. Credit Generation and Grade Point Average Considered Simultaneously 26
- COMPARISONS OF SENIOR COLLEGES: REGULAR STUDENTS 26
  1. Credits Earned 26
  2. Grade Point Average 28
- COMPARISONS OF LEVEL B, LEVEL A, AND REGULAR STUDENTS
  Summary 32
- COMPARISONS OF COMMUNITY COLLEGES: LEVEL B STUDENTS
  1. Credit Generation 32
  2. Grade Point Average 34
  3. Credits Earned and GPA 36
- COMPARISONS OF COMMUNITY COLLEGES: LEVEL A STUDENTS
  1. Credits Earned 36
  2. Grade Point Average 38
  3. Credits Earned and GPA 40
- COMMUNITY COLLEGE COMPARISONS: REGULAR STUDENTS
  1. Credits Earned 40
  2. Grade Point Average 40
  3. Credit Generation and Grade Point Average Considered Simultaneously 43

(Cont'd.)

Table of Contents (Cont'd)

	Page
COMPARISONS OF PERFORMANCE OF LEVEL B, A, AND REGULAR STUDENTS	43
CHAPTER 3: EFFECTS OF REMEDIATION	
Introduction	45
Criteria for Assessing Effects of Remediation	46
Impact of Remediation on Credit Generation and Grades: Senior Colleges	46
1. Level B Students	46
2. Level A Students	49
3. Regular Students	53
4. Comparisons Across High School Average	56
Summary of Findings for Senior Colleges	57
Analyses of Grade Point Average and Credit Generation: Community Colleges	58
1. Level B Students	58
2. Level A Students	61
3. Regular Students	65
Community College Summary	67
CHAPTER 4: ANALYSES OF ATTRITION	
Introduction	68
CUNY Attrition Compared with National Data	69
Analyses of Attrition After One Semester:Senior Colleges	70
1. Attrition and High School Average	71
2. Attrition and Credit Generation	73
3. Attrition and Grade Point Average	75
4. Attrition in Relation to Credit Ratio	78
5. First Semester Attrition in Relation to Remediation	78
6. Attrition in Relation to Restricted Programs	80
Analyses of Attrition After Two Semesters:Senior Colleges	82
1. Second Semester Attrition by High School Average	82
2. Second Semester Attrition in Relation to Grade Point Average	83
3. Second Semester Attrition in Relation to Credit Generation	85
4. Second Semester Attrition in Relation to Credit Ratio	87
5. Dropout and Re-entry	89
Analyses of Attrition After One Semester:Community Colleges.	91
1. Attrition and High School Average	
2. Attrition and Credit Generation	91
3. Attrition and Grade Point Average	92
4. First Semester Attrition in Relation to Credit Ratio	95
5. First Semester Attrition in Relation to Remediation	97
6. First Semester Attrition in Relation to Restricted Credit Load	99
Two Semester Attrition Analyses: Community Colleges	101
1. Attrition by High School Average	101
2. Second Semester Attrition in Relation to Cumulative Grade Point Average	102

(Cont'd)

Table of Contents (Cont'd)

	Page
3. Second Semester Attrition in Relation to Credit Generation	104
4. Second Semester Attrition in Relation to Credit Ratio.	104
5. Dropout and Re-entry	107
CHAPTER 5: COMPARISONS OF 1970 AND 1971 COHORTS	
Introduction	109
1970 and 1971 Comparisons of Grade Point Average: Senior Colleges	109
1970 and 1971 Comparisons of Credit Generation: Senior Colleges	111
1970 and 1971 Comparisons: Effects of Remediation on First Semester GPA-Senior Colleges	113
1970 and 1971 Comparisons of Grade Point Average: Community Colleges	115
1970 and 1971 Comparisons of Credit Generation: Community Colleges	116
1970 and 1971 Comparisons: Effects of Remediation on First Semester GPA-Community Colleges	118
CHAPTER 6: CONCLUSION	121
APPENDIX A	
Comparison of Major Research Assessments of Open Admissions	125
Introduction	125
Comparison of ACE and Lavin-Jacobson Findings	126

CHAPTER I

INTRODUCTION

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INTRODUCTION

Background of Open Admissions

In the Fall of 1970 the City University of New York (CUNY) began a new policy of open admissions. Under this program all graduates of New York City high schools were guaranteed a place in the University, irrespective of their high school average. The advent of this policy did not eliminate all competitive principles in admissions. Students who graduated high school with at least an 80 average or who graduated in the top half of their high school class were guaranteed a place in one of the four year senior colleges. All others were allocated to one of the two year community colleges.

Open admissions policies are not new in American higher education. They date back to the 19th century. Nevertheless, the CUNY program has aroused national attention due to certain significant features which differentiate it from programs in other places. First, CUNY is attempting to avoid the high attrition rates characteristic of open admissions policies elsewhere. The mechanism for achieving this has been the initiation of programs of remediation and other support services which have never before been attempted on such a massive scale. These services are also responsive to another aim of the CUNY plan: That academic standards should be maintained.

The CUNY program has generated a number of concerns on the part of the public and within the University. There are at least four to be noted

(not necessarily in order of importance). First, to what extent will CUNY succeed in avoiding the revolving door? In other open admissions models, once the student has been admitted his success or failure is defined as largely his own responsibility. At CUNY the responsibility for success has been transferred to the system to a significant degree.

A second issue concerns rates of academic progress. Given the fact that substantial numbers of students initially must take remedial work bearing little or no academic credit, the question arises as to how long it will take these students to attain a degree.

Related to this is a third issue: What is the impact of the remedial or compensatory work?

A fourth issue involves academic standards. Is it possible for the University to achieve the aims of open admissions and at the same time preserve academic standards? This issue is frequently noted, although it must be pointed out that the concept of standards is usually poorly defined in such discussions and does not take into account adaptations to a new clientele which do not necessarily imply a deterioration of standards. That is, changes in curriculum, content, and teaching technique need not be synonymous with dilution of quality.

The above issues are both a cause and a symptom of the local and national attention devoted to the CUNY open admissions program. Because of the visibility and importance of the program, the University has launched an effort to assess its various facets. This should provide one rational basis for subsequent modifications and improvements. Moreover, such data may provide guidance for institutions in other places which may be considering the adoption of similar programs.

The CUNY Students: Overview of Social and Economic Characteristics

One of the immediate consequences of the open admissions program (Indeed, some would say a major reason for its initiation), has been to provide greater access for minority group students. It was felt that such access could ultimately lead to increased chances for social mobility and that, therefore, the University might play a significant role in interrupting the poverty-welfare cycle which has been considered characteristic of the life situations of so many in the Black and Puerto Rican communities of New York City.

Data on the ethnic composition of the first two freshman classes entering since open admissions clearly indicate an increase in the attendance of Black and Puerto Rican students (see Table A). In both 1970 and 1971 between 16% and 17% of New York City high school graduates were Black. In the fall of 1970 almost 18% of the CUNY freshman class was Black, while in 1971, the percentage rose to 21%. In short, Black students are slightly over-represented in CUNY when compared to their proportions in the high school graduating classes. One might say that a certain parity has already been achieved by this group.

With regard to Puerto Ricans, it is estimated that they constituted about 9% of high school graduates in 1971. They were approximately 8.5% of the CUNY freshman class in both 1970 and 1971. In short, they are very slightly under-represented. However, when one considers that they were 4% of the 1967 freshmen, their proportion has more than doubled in four years.

It is important to note that Blacks and Puerto Ricans have not been the only groups for whom access to college has increased since open admissions. In absolute numbers we estimate that the largest single increase for any group is the increase in attendance of non-Puerto Rican Roman Catholic students. (While the University does not collect data on religion, some colleges in

TABLE A

Ethnic Census of Matriculated First-Time Freshmen

1967 - 1971

GROUP	1971 N.Y.C. H.S. Graduates[c]	Fall 1967	Fall 1968	Fall 1969	Fall 1970[b]	Fall 1971
Black	16% (11,348)	6.5% (1,137)	9.3% (1,668)	13.7% (2,775)	17.7% (6,286)	21.0% (8,234)
Puerto Rican	9 (6,383)	4.0 (699)	5.0 (897)	5.9 (1,195)	8.5 (3,018)	8.6 (3,372)
Others[a]	75 (53,191)	89.5 (15,650)	85.7 (15,373)	80.4 (16,283)	73.8 (26,207)	70.4 (27,605)
TOTAL	100.0% (70,922)	100.0% (17,486)	100.0% (17,938)	100.0% (20,253)	100.0% (35,511)	100.0% (39,211)

[a] Includes "No Response" in CUNY Ethnic Census.

[b] Revised to correct programming errors appearing in Fall 1970 CUNY Ethnic Census Report.

[c] The above distribution of New York City high school graduates are estimated from data contained in the New York State Education Department's Census of 12th Grade High School Students of Fall 1970.

In light of further investigation into the data a clarification of these estimates is in order: In the Report of the Fall 1970 Undergraduate Ethnic Census, the percentage of Puerto Rican high school graduates in 1970 was estimated at 10%. However, this 10% figure includes other Spanish Surnamed Americans as reflected in the Education Department's Census. In the 1971 high school graduating class the comparable figure for all Spanish Surnamed Americans is 11%. Independent investigation, confirmed by the research of Birnbaum and Goldman in The Graduates: A Follow-Up Study of New York City High School Graduates of 1970, indicates that other Spanish Surnamed American graduates account for approximately 2% of all graduates, reducing the estimate for Puerto Rican high school graduates to 9%.

Source: City University Department of Budget and Planning, Office of Data Collection, January 1972.

CUNY have participated in the national program of the American Council on Education for several years. Our estimate is based on these data). These findings are important in that they may serve to correct an erroneous impression in the public perception; namely, that open admissions is a euphemism for Black and Puerto Rican admissions.

It is also to be noted that another major group, Jewish students, do not appear to have been adversely affected by open admissions. It is true that their proportion has decreased in the CUNY population. However, this is due primarily to the fact that the additional students admitted under open admissions have been from other ethnic and religious groups. There may have been a slight decrease in the absolute numbers of Jewish students attending CUNY, but this trend was clearly evident before the beginning of open admissions.

The economic position of any group has important implications for the fate of that group in many situations. It is, therefore, of importance to consider the economic composition of CUNY students entering under the open admissions program. For the first time in 1971 the University collected information on income as a part of its "Ethnic Census". The CUNY data indicate that almost 70% of the freshmen report incomes of less than $12,000. Nationally 24.3% of freshmen in 1970 reported family incomes of less than $8,000. For the 1971 freshmen at CUNY, the corresponding figure is 42%. (The CUNY data do not have a cut-point ending at $7,999. On the assumption that students are equally distributed within an interval, we have interpolated to arrive at the conclusion that 42% of the freshmen are below the $8,000 level.) The data indicate also that 26.5% of the 1971 CUNY freshmen reported incomes of less than $6,000.

These figures do not take into account the greater cost of living in the New York metropolitan area. If adjusted for this factor, the proportions of CUNY students at low income levels would be even higher.

Why are such data significant? There are at least two reasons. First, national studies of attrition indicate that economic status is strongly associated with dropout (Astin, 1972), and this must be considered, therefore, in assessing the success of the CUNY attempt to avoid the revolving door phenomenon frequently associated with open enrollment programs. Second, the income structure must obviously be taken into account in assessing the free tuition policy which has been in effect at the University since its inception.

Focus of this report

This is the first of a series of forthcoming reports on open admissions. We are studying the first three classes which have entered since the inception of the program. The focus is longitudinal. That is, we aim to follow these classes as they move through college. This report considers the student cohort which entered CUNY in the fall of 1970. It describes what has happened to them over the course of their first year and a half in the University. We also present data on the first semester experience of the 1971 cohort.

The study focuses on student academic outcomes at the individual CUNY campuses. These campus comparisons constitute the heart of the report. Aggregate statistics for the senior and community colleges are sometimes presented to serve as reference points for the campus comparisons.

In many respects CUNY is a federated rather than centrally organized

university. Thus, when the decision was made to begin open admissions in the fall of 1970, the campuses were expected to conform only to certain general guidelines. They were to develop various support services in areas such as counseling and remediation, and there was to be a grace period of at least one year during which students were not to be dismissed for academic reasons. Beyond these general constraints, each campus had great autonomy in formulating its own mechanisms for implementation.

Campuses therefore exhibited considerable diversity in the structuring of open admissions programs. From our point of view this diversity was fortuitous. Since there is no precedent for the CUNY type of open admissions policy, it would have been unfortunate if each campus tried to implement the policy in the same way.

The value of diversity is that it constitutes a kind of "natural experiment". The programs of some campuses may have been more effective than others. If this were the case, research should allow us to assess those programs, and components thereof, which seem to have the most impact. This would then furnish one rational basis for subsequent modifications and improvements in programs on every campus. For these reasons the comparative focus is crucial.

Our aim in this interim report is descriptive. We give no detailed consideration to the different styles of open admissions implementation and the relation of these to observed differences in open admissions outcomes. The analysis of styles of open admissions implementation is the primary focus of our project supported by the Esso Education Foundation. When this work is completed, a report will then consider in detail those specific open admissions components which have beneficial impact.

Organization of the Report

The following topics are considered in the chapters to follow:

1) How successful have students been academically? That is, how are they doing in terms of the traditional criteria of grades and credit generation?

2) What has been the impact of remedial programs? Do they enable students with weak preparation to move into the mainstream of academic work?

3) What are the attrition rates for various categories of students and what are the academic settings and student performances which help to explain attrition?

4) How do the 1970 and 1971 freshmen compare in terms of their academic performance during their first semester of college work?

Limitations of the Data

All the data for this report come from two sources. First, high school background data come from the University Applications Processing Center (UAPC). Second, the academic performance data have been supplied by the registrars and data processing managers at each CUNY campus. These are in the form of computer tapes. The first task when we receive these data is to merge the two files. Initially, it is not possible to match all cases. We then visit every campus in an effort to recover the information necessary to place the student in our data file. This is an ongoing process, and therefore, some students are missing from our analyses. This is particularly true for the case of the 1971 freshmen, where we have not yet had an opportunity to recover data necessary for matching. For this reason large numbers of students are missing for this cohort. At one college in particular (York) we are omitting one major group of students. It should also be noted that by design SEEK and College Discovery students

are not included in the report. However, students admitted under other special programs are included. This will account for the fact that at Brooklyn College the number of students in certain categories exceeds the number listed in official enrollment reports as admitted under "regular procedures".

Another limitation of the data concerns the characteristics of the student performance information. First, students show incompletes for some courses. These have been updated for the 1970-71 academic year, but not for the fall term of 1971. Incompletes not updated receive no credit. This means that in some cases there are underestimates of the credits earned by students, since some have changed these incompletes into credit bearing grades which are not reflected in our data.

There were instances in which credits were omitted, courses had no grades listed, and courses were duplicated (listed more than once). These have been updated for all three semesters covered by this report.

We expect that as CUNY develops its information system the data presented in future reports will become more complete.

Data are presented for twelve of the fifteen campuses participating in the first year of open admissions. For three campuses, there were serious difficulties with the data. These have not yet been overcome. However, when we present our next report on the first two years of open admissions, we expect to include them. With regard to our comparisons of the first semester performance of the 1970 and 1971 freshmen, it should be noted that two new campuses which began operation in the fall of 1971 are not included since there are no comparative data for them.

Scope of Future Reports

This is a first report on the academic outcomes of open admissions. Other reports are forthcoming. The next will be an assessment of outcomes covering four semesters for the 1970 cohort and two semesters for the 1971 cohort.

These forthcoming reports will include tests for statistical significance of percentage differences which have not been carried out in this report in order to expedite its completion.

In addition, other types of data, for example, on the social and economic characteristics of the student body, should also enrich future analyses. Hence, this first report should be seen in a developmental context.

A Note on Percentage Differences

In the analyses to follow we are using two principles in deciding whether to take percentage differences seriously. First, a rule of thumb is that differences of 5% or less are considered insignificant. However, in some cases there may be a <u>pattern</u> revealed by several comparisons. If several comparisons show small differences, and if they always run in the <u>same</u> direction, we shall interpret this as suggestive of a trend.

CHAPTER 2

PERFORMANCE ON CRITERIA OF ACADEMIC SUCCESS

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PERFORMANCE ON CRITERIA OF ACADEMIC SUCCESS

Introduction

In this chapter we consider the two major indices of academic success: 1) Credit Generation; 2) Grade Point Average. All of the three semester analyses of credit generation classify students according to whether they earned more than 36 credits or less than 36 credits. Any analysis of a single semester groups students according to whether they (1) earned 12 or more credits or (2) earned less than 12 credits.

Analyses of grade point average always classify students according to whether they earned less than a 2.00 average or whether they earned a 2.00 or better. The 2.00 level is the minimum required for graduation.

All of the analyses to follow have been conducted while controlling for high school average. For both senior and community colleges there are three categories of high school average, level B, level A, and regular. At senior colleges these categories have the following definition: level B's are those students whose high school average was less than 70, level A's had between 70 and 79.9, and regulars are those with averages of 80 or above. At the community colleges level B's are below 70, level A's are between 70.0 and 74.9, and regulars are those with averages of 75 or above. These definitions hold for all analyses in all of the following chapters. It should be noted that these high school averages are "college admissions averages". That is, they include only academic courses in areas such as mathematics, English, science and the like. Moreover, these averages do not include the second semester of the senior year.

Data are presented first on the cumulative credits students at the

individual colleges earned over the course of the first three semesters. However, any analysis of open admissions which considers credits accumulated over some period of time falls short of a precise understanding of the capabilities of open admissions students. It is more strategic to consider the following: do they ever show the capacity to perform in the manner expected of a full time student? That is, can they manage to generate at least 12 credits in any semester? Particularly, are they able to perform as a full-time student by their third semester of matriculation? The same set of analyses are presented for grade point average.

Finally, we simultaneously consider the performance of students regarding credits and grade point average. We will first look at the performance of level B's at the various senior colleges, followed by a consideration of the level A students, and conclude with a survey of the academic achievement of the regulars. We then follow the same procedure for the community colleges.

Comparisons of Senior Colleges: Level B Students

1. Credit Generation. Analyses of credit generation are presented in Tables 2.1-2.4. The proportion of students who persisted in college for three semesters and who generated 36 or more credits varies considerably from college to college. At York and Lehman 21% of these level B students had accumulated 36 credits. On the other hand, only 11% of the students at Hunter and 12% at City College and Brooklyn earned this many credits. In short, the proportion of students at the top rank colleges who earned at least 36 credits was two times greater than the proportion at the lowest rank colleges (Table 2.1). Since the proportion of level B students earning 36 or more credits in the senior colleges as a whole is 16%, this means that City College, Hunter and Brooklyn are below average.

TABLE 2.1

Three Semester Cumulative Credits Earned (% Earning 36 or More Credits): Rank Order of Senior Colleges for Level B Students

College	%	N
York	21	53
Lehman	21	42
Baruch	18	51
Brooklyn	12	77
City College	12	26
Hunter	11	28
Queens	-	2*
CUNY SR. COLLEGE AVERAGE	16	279

*Insufficient N to tabulate results.

One important factor to consider in interpreting these findings is the number of credits attempted in the first term. Colleges which placed many students on restricted credit loads would be expected to have a smaller proportion of students earning 36 credits by the third semester. Of course, it does not follow that colleges which did not utilize restricted credit loads will necessarily have higher proportions of students reaching this level after one year and a half. Nevertheless, it is necessary to consider the possibility that colleges with rather few students earning 36 credits were the ones which most used restricted programs. Table 2.2 presents the relevant data. From Table 2.1 we have seen that the three colleges where students produced the most credits were York (21%), Lehman (21%), and Baruch (18%).

These three colleges do not cluster together in terms of credits attempted by level B students during their first semester. It can be seen that Lehman was the college least likely to use restricted credit loads, since almost three-quarters of their level B students registered for 12 or more credits. On the other hand York and Baruch were the two colleges most likely to utilize restricted credit loads. The two colleges with the lowest amount of credit generation (Hunter and City College) were not institutions most likely to have utilized restricted programming. In short, our findings concerning three semester credit generation are not simply explained with reference to credits attempted.

TABLE 2.2

Credits Attempted First Semester: Level B Students In Senior Colleges

	CREDITS ATTEMPTED		
College	12+	8-11	Below 8
Lehman	71%	24%	5%
Hunter	61	29	11
Brooklyn	58	33	9
City College	50	35	15
York	45	40	15
Baruch	29	49	22
Queens	--	--	--

While there are rather large differences among institutions in the number of credits earned over three semesters, even on the top ranking campuses only about two in ten level B students have earned 36 credits. Since these students, more than others, would never have been admitted to any college prior to open admissions, and since it is to be expected that they would

be slow starters (frequently a result of remediation), the three semester cumulative finding is not unexpected. Indeed, it masks the more critical question of progress. In order to assess this question, we consider performance in the third semester.

The data are presented in Table 2.3. Lehman, which was at the top of the list for three semester cumulative credits earned, also heads the list for performance in the third semester. Forty-five percent of its level B students earned 12 or more credits in their third term. Again high on the list is Baruch (39% of its level B's attained 12 credits). Both of these schools are above the CUNY senior college average (32%). Near the bottom of the list again are City College (23%) and Hunter (18%).

In summary, we notice considerable spread between the top and bottom schools. At Lehman almost one-half of the students generated 12 credits, whereas at City College and Hunter only about one-fifth of the level B's performed this well.

TABLE 2.3

Percent of Level B Students Earning 12 Credits in Third Semester: Rank Order of Senior Colleges

College	%	N
Lehman	45	42
Baruch	39	51
York	32	53
Brooklyn	26	77
City College	23	26
Hunter	18	28
Queens	--	2
CUNY SR. COLLEGE AVERAGE	32	279

Another way of looking at credit generation is to ask whether these

students are capable of earning 12 credits during any one of their first three terms. These findings are presented in Table 2.4. Again, Lehman heads the list. Three-quarters of its students earned 12 credits during at least one of their three terms. This is considerably above the CUNY senior college average (57% of level B students, CUNY-wide, earned 12 credits at least once). City College and Hunter again lag, with somewhat less than 40% of their students earning 12 credits at least once. These two colleges are considerably below the CUNY average. The success of their students in this regard is only one-half as great as that of the Lehman students.

TABLE 2.4

Percent of Level B students Earning 12 Credits in at Least One of First Three Semesters: Rank Order of Senior Colleges

College	%	N
Lehman	76	42
Brooklyn	62	77
York	61	53
Baruch	55	51
Hunter	36	28
City College	35	26
Queens	—	2
CUNY SR. COLLEGE AVERAGE	57	279

2. Summary of Credit Generation. There appears to be consistency of performance with regard to the three indices of credit generation. Lehman, Baruch, and York tend to be the three top ranking colleges, while Hunter and City College students do the least well.

3. Grade Point Average. We now consider our second and, perhaps, more crucial index of academic success, grade point average. Data for three semester cumulative GPA are presented in Table 2.5. Three colleges are above the CUNY average of 37%. These are York (49% of its level B students had a three semester cumulative GPA of 2.00 or better), Brooklyn (44%), and Hunter (43%). City College is far below average. Only 8% of its students attained a C average over the first year and one-half of their college careers. It is also noteworthy that Hunter which was low in credit generation moves toward the top of the list on the GPA index.

TABLE 2.5

Three Semester Cumulative Grade Point Average for Level B Students (Percent With 2.00 or Above): Rank Order of Senior Colleges

College	%	N
York	49	53
Brooklyn	44	77
Hunter	43	28
Lehman	33	42
Baruch	28	51
City College	8	26
Queens	--	2
CUNY SR. COLLEGE AVERAGE	37	279

As to whether students were able to attain a 2.00 in their third term (Table 2.6), for the senior colleges taken as a whole, 36% of level B students did reach this level. At the individual colleges, Lehman did the best (44%), followed closely by Baruch with 42%. Only City College is well below average (24% of its students earned a C average in their third term).

TABLE 2.6

Percent of Level B Students Earning 2.00 or Better GPA in Third Semester: Rank Order of Senior Colleges

College	%	N
Lehman	44	41
Baruch	42	50
Hunter	37	27
York	36	53
Brooklyn	30	77
City College	24	25
Queens	-	2
CUNY SR. COLLEGE AVERAGE	36	275

Our final question concerning grade point average is this: are level B students able to attain a 2.00 average in any of their first three semesters? The answer (Table 2.7) is in the affirmative for 93% of Hunter students. York (87%) and Brooklyn (82%) are also above the CUNY average of 77%. Baruch (64%) and City College (48%) are below average. The range from top to bottom is fairly wide. A Hunter student is almost twice as likely to have earned a C average at least once than is a City College student.

The major change that we note for the grade point average criterion concerns Hunter college. Students there were below average in credit generation. While their productivity in this regard may be on the low side, they appear to be doing quite well with regard to grades. We have not observed any college exhibiting the opposite pattern; i.e., where a large percentage of students generate many credits but fail to attain a C average. Students at City College seem to be doing rather poorly on both credit generation and GPA.

TABLE 2.7

Percent of Level B Students Earning 2.00 or Better GPA in at Least One of First Three Semesters: Rank Order of Senior Colleges

College	%	N
Hunter	93	27
York	87	53
Brooklyn	82	77
Lehman	78	41
Baruch	64	50
City College	48	25
Queens	--	2
CUNY SR. COLLEGE AVERAGE	77	275

4. Credit Generation and Grade Point Average Considered Simultaneously

To this point we have considered credit generation and GPA's separately. Our primary focus is on the percentages of students performing at the minimum levels necessary for academic success; e.g., earning at least a 2.00 average and earning at least 12 credits per term. Since both are necessary, we now consider them simultaneously. The important question is this: what proportions of students are earning 36 credits and attaining at least a 2.00 GPA?

What can be seen from Table 2.8 is that relatively few students at any college meet both criteria. For the senior colleges as a whole, only 13% of level B's were reaching these minimal levels of academic success. Two colleges depart considerably from the average. At York 21% of the students are achieving both criteria. On the other hand, at City College this is true for only 4% of the students. The other colleges are bunched rather closely around the average.

TABLE 2.8

Percent of Level B Students With 36 Credits and a 2.00 GPA After Three Semesters

College	%	N
York	21	53
Baruch	14	51
Lehman	12	42
Hunter	11	28
Brooklyn	10	77
City College	4	26
Queens	--	2
CUNY SR. COLLEGE AVERAGE	13	279

5. Summary for Level B Students. To summarize our findings for the level B students, Lehman seems to be doing rather well compared with its fellow institutions. We would consider performance in the third semester to be the most important index of academic progress. With regard to credits and GPA in this third term, over 44% of the Lehman students are meeting or exceeding at least one of these minimal criteria. On the other hand, the performance of City College students seems consistently the lowest among this group of institutions. Baruch and York are a bit above average, while Brooklyn seems slightly below average.

Comparisons of Senior Colleges: Level A Students

1. Credit Generation. We consider first the results for credit generation. For the senior colleges as a group, 46% of level A students earn at least 36 credits during the first year and one-half of their college careers. As shown in Table 2.9, three colleges exceeded this figure: Lehman (65%), Brooklyn (54%), and York (50%). City College (39%) and Hunter (28%) were below average.

TABLE 2.9

Three Semester Cumulative Credits Earned (% Earning 36 or More Credits): Rank Order of Senior Colleges for Level A Students		
College	%	N
Lehman	65	632
Brooklyn	54	689
York	50	404
Queens	42	397
Baruch	42	501
City College	39	655
Hunter	28	651
CUNY SR. COLLEGE AVERAGE	46	3929

As Table 2.10 shows, the two leading colleges in credit generation, Lehman and Brooklyn are also the two colleges most likely to have registered students for full academic loads (at least 12 credits). On the other hand, the two least productive colleges, City College and Hunter were not the colleges most likely to place students on restricted credit loads. This suggests, therefore, that the below average performance of these two institutions is not in itself due to policies regarding the number of credits for which students registered.

TABLE 2.10

Credits Attempted First Semester: Level A Students in Senior Colleges			
College	12+	8-11	Below 8
Lehman	93%	5%	2%
Brooklyn	84	15	2
City College	71	24	5
York	70	24	6
Hunter	67	24	10
Baruch	55	36	10
Queens	54	31	15

On our most strategic measure of academic progress, the number of credits earned in the third semester (Table 2.11), at the senior colleges as a whole 50% of the level A students earned at least 12 credits. Four colleges surpassed this figure. Lehman is again the leader (62% of its students earned 12 or more credits). Brooklyn, Baruch, and York are the other schools. Queens is close to the average, while City College (40%) and Hunter (38%) again fall the farthest below the average. Thus at City College and Hunter almost 4 in 10 level A students earned at least 12 credits in their third term, while at Lehman this was true of 6 in 10.

TABLE 2.11

Percent of Level A Students Earning 12 Credits in Third Semester: Rank Order of Senior Colleges

College	%	N
Lehman	62	632
Brooklyn	55	689
Baruch	54	501
York	54	404
Queens	47	397
City College	40	655
Hunter	38	651
CUNY SR. COLLEGE AVERAGE	50	3929

Our final assessment of credit generation considers the percent of students who are able to earn 12 credits in at least one of their first three semesters (Table 2.12). The senior college average was 79%. Again, there is considerable institutional variation. Ninety-one percent of Lehman students achieved this level at least once, while this was true for 66% of Hunter students. The other colleges cluster reasonably close to the average.

TABLE 2.12

Percent of Level A Students Earning 12 Credits in at Least One of First Three Semesters: Rank Order of Senior Colleges

College	%	N
Lehman	91	632
Brooklyn	83	689
York	82	404
Baruch	78	501
Queens	77	397
City College	75	655
Hunter	66	651
CUNY SR. COLLEGE AVERAGE	79	3929

2. Summary of Credit Generation. The credit generation findings show a certain consistency. Students at Lehman and Brooklyn seem to be the most productive, while City College and Hunter students earned the fewest credits.

3. Grade Point Average. With regard to our second criterion of academic success, grade point average, students at Queens and York were the most likely to attain at least a C average over the course of three semesters (Table 2.13). About three-quarters of these students reached this level compared with the senior college average of 62%. At City College students were least likely to attain a 2.00 average (only 45% did so).

TABLE 2.13

Three Semester Cumulative Grade Point Average for Level A Students (Percent with 2.00 or Above): Rank Order of Senior Colleges

College	%	N
Queens	75	397
York	73	404
Hunter	67	651
Brooklyn	64	689
Lehman	60	632
Baruch	55	501
City College	45	655
CUNY SR. COLLEGE AVERAGE	62	3929

Data for grade point average in the third semester are presented in Table 2.14. York which was high on the list for three semester cumulative GPA leads the senior colleges for this third term performance index, followed by Lehman. Seven out of ten York students attained at least a C average in their third semester. This compares with 60% for the senior colleges as a group. With the exception of City College, where only 48% of the students earned a C average, the other schools are bunched fairly closely around the senior college average.

TABLE 2.14

Percent of Level A Students Earning 2.00 or Better GPA in Third Semester: Rank Order of Senior Colleges

College	%	N
York	70	400
Lehman	66	623
Hunter	63	626
Queens	61	387
Baruch	60	494
Brooklyn	59	681
City College	48	633
CUNY SR. COLLEGE AVERAGE	60	3844

On our final measure of grades (presented in Table 2.15) we find that at Queens 100% of the level A students were able to attain a C average in at least one of their first three terms. The other colleges fall reasonably close to the senior college average of 88%. However, City College is somewhat below the others--77% of its students were able to achieve a C average at least once.

TABLE 2.15

Percent of Level A Students Earning 2.00 or Better in at Least One of First Three Semesters: Rank Order of Senior Colleges

College	%	N
Queens	100	387
York	92	400
Hunter	91	626
Brooklyn	89	681
Lehman	89	623
Baruch	85	494
City College	77	633
CUNY SR. COLLEGE AVERAGE	88	3844

4. Summary of Grade Point Average. With regard to these GPA criteria, York and Queens seem to have compiled the strongest record. City College students continue to have the lowest probability of performing well on this index. It should also be noted that while Hunter was relatively low in credit generation, it makes a rather strong showing on grade point average. Lehman which was at the head of the list in credit generation is about in the middle on grades, coming close to the senior college average on two of the three comparisons.

5. Credit Generation and Grade Point Average Considered Simultaneously.

We now consider our final assessment of performance for the level A students. This pertains to the likelihood that students will earn both 36 credits and achieve a 2.00 average over the course of their first three semesters (Table 2.16). For the senior colleges as a group, 39% of level A students met both criteria. Three campuses clearly exceed this figure: Lehman (50%), Brooklyn (45%), and York (45%). City College with 30% and Hunter with 26% are the institutions whose students are least likely to reach these levels.

TABLE 2.16

Percent Level A Students with 36 Credits and a 2.00 GPA After Three Semesters

College	%	N
Lehman	50	632
Brooklyn	45	689
York	45	404
Queens	41	397
Baruch	36	501
City College	30	655
Hunter	26	651
CUNY SR. COLLEGE AVERAGE	39	3929

Comparisons of Senior Colleges: Regular Students.

1. Credits Earned. At the senior colleges generally, 75% of regular students achieve at least 36 or more credits over the course of three semesters. As Table 2.17 shows, two colleges, Lehman and Brooklyn, exceed this record. Queens and Baruch are about average, while York, City College and Hunter are below average.

TABLE 2.17

Three Semester Cumulative Credits Earned (% Earning 36 or More Credits): Rank Order of Senior Colleges for Regular Students		
College	%	N
Lehman	88	672
Brooklyn	85	2445
Queens	73	2164
Baruch	72	342
York	67	88
City College	65	1204
Hunter	65	1355
CUNY SR. COLLEGE AVERAGE	75	8270

Seventy-three percent of senior college students achieved 12 or more credits their third semester. As Table 2.18 shows, four colleges exceeded this record. These are Lehman, Brooklyn, Baruch and Queens. Hunter, City College and York fall below average.

TABLE 2.18

Percent of Regular Students Earning 12 Credits in Third Semester: Rank Order of Senior Colleges		
College	%	N
Lehman	82	672
Brooklyn	81	2445
Baruch	76	342
Queens	75	2164
Hunter	66	1355
City College	58	1204
York	57	88
CUNY SR. COLLEGE AVERAGE	73	8270

With regard to the likelihood of attaining 12 or more credits in at

least one of three terms, the colleges are rather closely bunched (Table 2.19). Lehman is the leader (98% of its regular students attained a C at least once. On the other hand, the lowest rank schools, Hunter and York also showed 91% of their students attaining this criterion.

TABLE 2.19

Percent of Regular Students Earning 12 Credits in at Least One of Three Semesters: Rank Order of Senior Colleges

College	%	N
Lehman	98	672
Brooklyn	97	2445
Queens	94	2164
Baruch	93	342
City College	92	1204
York	91	88
Hunter	91	1355
CUNY SR. COLLEGE AVERAGE	94	8270

2. Grade Point Average. We turn now to grades. As Table 2.20 shows, 94% of Queens students had a C average over their first three terms. City College was lowest in this respect--80% of its regular students earned at least a 2.00. For the senior colleges as a group, 88% of the regulars managed at least this average. On this criterion the range between the lowest and highest school is somewhat narrower than for earlier comparisons.

TABLE 2.20

Three Semester Cumulative Grade Point Average for Level A Students (Percent with 2.00 or Above): Rank Order of Senior Colleges

College	%	N
Queens	94	2164
Lehman	89	672
Hunter	88	1355
Brooklyn	88	2445
York	86	88
Baruch	84	342
City College	80	1204
CUNY SR. COLLEGE AVERAGE	88	8270

As Table 2.21 shows, 88% of Lehman students earned at least a C average in their third semester, while at the lowest rank schools, Hunter and City College 77% attained this level. The overall senior college average was 83%. Thus the range from top to bottom is fairly narrow. The same may be said for our third measure of grade point average: the likelihood of earning a 2.00 or better in at least one of the first three terms. All colleges show well over 90% of their regular students achieving this level (Table 2.22).

In general there are smaller differences in academic performance among regular students than we have observed for the level A and B students. Nevertheless, Lehman, Brooklyn, and Queens seem slightly ahead of the other colleges in the performance of these students. York, which showed rather strongly for the level B and A students, is not a leader for the regular students. However, since the range of performance among this group is relatively narrow and the attainment rather high, this is not a particularly striking finding. City College continues to be among the lowest schools, as it has with all of our other comparisons.

TABLE 2.21

Percent of Regular Students Earning 2.00 or Better G.P.A. in Third Semester: Rank Order of Senior Colleges

College	%	N
Lehman	88	670
Brooklyn	86	2439
Queens	84	2148
Baruch	84	339
York	83	88
Hunter	77	1335
City College	77	1173
CUNY SR. COLLEGE AVERAGE	83	8192

TABLE 2.22

Percent of Regular Students Earning 2.00 or Better GPA in at Least One of First Three Semesters: Rank Order of Senior Colleges

College	%	N
Queens	100	2148
Lehman	99	670
York	97	88
Hunter	97	1335
Brooklyn	97	2439
Baruch	97	339
City College	95	1173
CUNY SR. COLLEGE AVERAGE	94	8192

3. Credit Generation and Grade Point Average Considered Simultaneously.

Table 2.23 shows the percentages of students at each college who earned at least 36 credits as well as at least a C average. Lehman again leads the group (82% attained both criteria), followed by Brooklyn with 81%. The senior college average is 73%, and this is matched exactly by Queens. The remaining institutions fall slightly below this figure with York (63%), City College (63%), and Hunter (62%) at the low end of the distribution.

TABLE 2.23

Percent Regular Students with 36 Credits and a 2.00 GPA After Three Semesters

College	%	N
Lehman	82	672
Brooklyn	81	2445
Queens	73	2164
Baruch	68	342
York	63	88
City College	63	1204
Hunter	62	1355
CUNY SR. COLLEGE AVERAGE	73	8270

Comparisons of Level B, Level A, and Regular Students

We now wish to consider the discrepancy in performance among level B, A, and Regular students. Our focus is on the following question: at what colleges is the performance gap among the three levels of students greatest, and at what colleges is it the smallest? These comparisons are presented in Tables 2.24 and 2.25.

For cumulative credits earned the performance gap between level B and level A students is smallest at Baruch and York. At the former a level A student is 2.3 times as likely to have earned at least 36 credits than is the level B student. At Brooklyn the level A student is 4.5 times as likely to earn this many credits than his level B counterpart.

The performance gap between level A and regular students is smaller. At York the regular student is 1.3 times as likely to earn 36 credits compared with the level A student. At Lehman the ratio is 1.4. The largest gap is at Hunter where the ratio is 2.3.

TABLE 2.24

Comparison of Level B, A, and Regular Students: Cumulative Credits Earned (Ratios),: Senior Colleges

College	Level B with Level A	Level A with Regular
Lehman	3.1	1.4
York	2.4	1.3
Brooklyn	4.5	1.6
Baruch	2.3	1.7
Queens	---	1.7
Hunter	2.5	2.3
City College	3.3	1.7

With regard to cumulative grade point average, the gap between level B's and level A's is smallest at York and Brooklyn. It is largest at City College where the level A student is 5.6 times as likely to earn a 2.00 average than his

level B counterpart. The discrepancy in performance between level A and regular students is again smallest at York, followed by Queens and Hunter. The gap is largest at City College.

TABLE 2.25

Comparison of Level B, A, and Regular Students:
Three Semester Cumulative Grade Point Average (Ratios): Senior Colleges

College	Level B with Level A	Level A with Regular
Lehman	1.8	1.5
York	1.5	1.2
Brooklyn	1.5	1.4
Baruch	2.0	1.5
Queens	---	1.3
Hunter	1.6	1.3
City College	5.6	1.8

Summary

Overall, students of different levels most closely resemble one another in performance at York. The performance gap is greatest at City College particularly when level B and A students are compared.

Comparisons of Community Colleges: Level B Students

1. Credit Generation. Data on credit generation are presented in Tables 2.26, 2.27 and 2.28. For the community colleges as a group, 29% of level B students succeeded in earning at least 36 credits by the end of three semesters. Three colleges, Manhattan (46%), Kingsborough (42%) and NYCCC (36%) exceed this average. Staten Island (22%) is somewhat below the average, while Queensborough (10%) is considerably below average. The range seems rather wide. More than four times as many students at Manhattan earned 36 credits than is the case at Queensborough.

TABLE 2.26

Three Semester Cumulative Credits Earned
Percent Earning 36 or More Credits by Level B Students:
Rank Order of Community Colleges

College	%	N
Manhattan	46	158
Kingsborough	42	419
NYCCC	36	342
Staten Island	22	198
Queensborough	10	427
CUNY COMMUNITY COLLEGE AVERAGE	29	1544

Thirty-six percent of all community college level B students managed to earn at least 12 credits in their third semester. Three colleges exceed this figure (Table 2.27). These are Manhattan, Kingsborough and NYCCC. Staten Island and Queensborough are again below average.

TABLE 2.27

Percent of Level B Students Earning 12 Credits in Third Semester:
Rank Order of Community Colleges

College	%	N
Manhattan	49	158
Kingsborough	48	419
NYCCC	42	342
Staten Island	29	198
Queensborough	18	427
CUNY COMMUNITY COLLEGE AVERAGE	36	1544

Sixty-two percent of community college level B students were able to earn 12 credits at least once during their first year and a half of college.

As Table 2.28 indicates, three colleges exceed this figure. These are again Manhattan, Kingsborough and NYCCC. Only Queensborough falls well below average. Thirty-seven percent of its students were able to earn 12 or more credits at least once.

TABLE 2.28

Percent of Level B Students Earning 12 Credits in at Least One of the First Three Semesters: Rank Order of Community Colleges

College	%	N
Manhattan	81	158
Kingsborough	72	419
NYCCC	72	342
Staten Island	60	198
Queensborough	37	427
CUNY COMMUNITY COLLEGE AVERAGE	62	1544

These data for credit generation indicate that Manhattan students generate the most credits on all of our three indices while Queensborough students are the least productive.

2. Grade Point Average. With regard to grade point average (Table 2.29). 45% of community college level B students had a three semester cumulative GPA of 2.00 or better. Above this figure were students from Manhattan (70%), NYCCC (52%), and Kingsborough (50%). Staten Island (40%) is slightly below average, while at Queensborough, less than 30% reached this level.

TABLE 2.29

Three Semester Cumulative Grade Point Average of Level B Students (Percent with 2.0 or Above): Rank Order of Community Colleges

College	%	N
Manhattan	70	158
NYCCC	52	342
Kingsborough	50	419
Staten Island	40	198
Queensborough	27	427
CUNY COMMUNITY COLLEGE AVERAGE	45	1544

When we consider the third semester alone (Table 2.30), 43% of community college students achieved at least a 2.00. Manhattan students again exceed this figure by a considerable amount--58% of them achieved a C average. On the other hand, only 32% of students at Queensborough reached this level. However the discrepancy between the top and bottom rank schools on this index is not as great as the discrepancy for three semester cumulative GPA.

TABLE 2.30

Percent Level B Students Earning 2.00 or Better GPA in Third Semester: Rank Order of Community Colleges

College	%	N
Manhattan	58	150
Kingsborough	47	392
Staten Island	46	186
NYCCC	44	329
Queensborough	32	407
CUNY COMMUNITY COLLEGE AVERAGE	43	1464

When we ask whether students were able to attain a C average at least once during their first three terms(Table 2.31),we find that 81% of community college students did so. Among the individual schools the range is from 70% at Queensborough to 99% at Manhattan. Thus, the great majority of the students were able to attain a C average at least once.

TABLE 2.31

Percent Level B Students Earning 2.00 or Better GPA in at Least One of First Three Semesters: Rank Order of Community Colleges

College	%	N
Manhattan	99	150
Kingsborough	87	392
NYCCC	81	329
Staten Island	76	186
Queensborough	70	407
CUNY COMMUNITY COLLEGE AVERAGE	81	1464

3. Credits Earned and GPA. What proportion of students were able to achieve both a C average and 36 credits after three semesters? Twenty-four percent of community college students were able to do this. Table 2.32 shows that at the individual colleges the range varies from 8% at Queensborough to 42% at Manhattan. In other words, the chances are five times greater at Manhattan that a student will meet these minimal criteria for academic achievement than they are at Queensborough.

What emerges clearly from these data is that Manhattan students exhibit the strongest performance both in terms of credits and grades. Students at Queensborough generate the fewest credits and are less likely to achieve a C average.

TABLE 2.32

Percent of Level B Students with 36 Credits and a 2.00 GPA after Three Semesters: Community Colleges

College	%	N
Manhattan	42	158
Kingsborough	31	419
NYCCC	30	342
Staten Island	19	198
Queensborough	8	427
CUNY COMMUNITY COLLEGE AVERAGE	24	1544

Comparisons of Community Colleges: Level A Students

1. Credits Earned. At the community colleges as a group, 41% of level A students earned 36 or more credits over three semesters. Table 2.33 indicates that students at Kingsborough (60%), NYCCC (51%) and Manhattan (47%) exceed this proportion. Queensborough is again below average--only 23% of its students attained 36 credits.

TABLE 2.33

Three Semester Cumulative Credits Earned (% Earning 36 or More Credits) by Level A Students: Rank Order of Community Colleges

College	%	N
Kingsborough	60	476
NYCCC	51	363
Manhattan	47	180
Staten Island	34	324
Queensborough	23	611
CUNY COMMUNITY COLLEGE AVERAGE	41	1954

In the third semester 46% of level A students in the community colleges generated 12 credits. Kingsborough (60%), NYCCC (53%), and Manhattan (46%), all equal or exceed this figure (Table 2.34); Queensborough and Staten Island fall below the community college average.

TABLE 2.34

Percent of Level A Students Earning 12 Credits in Third Semester: Rank Order of Community Colleges

College	%	N
Kingsborough	60	476
NYCCC	53	363
Manhattan	46	180
Queensborough	37	611
Staten Island	35	324
CUNY COMMUNITY COLLEGE AVERAGE	46	1954

Whereas 73% of level A students achieved 12 or more credits in at least one of their three semesters (Table 2.35), this was true for 86% of the students at Kingsborough and 85% at Manhattan. Students at NYCCC were above average. Staten Island and particularly Queensborough students fell below this figure.

However, the range among the colleges is not as great for this index of credits as it was for the prior index (the percent earning 12 credits in the third semester).

TABLE 2.35

Percent of Level A Students Earning 12 Credits in at Least One of the First Three Semesters: Rank Order of Community Colleges

College	%	N
Kingsborough	86	476
Manhattan	85	180
NYCCC	79	363
Staten Island	70	324
Queensborough	59	611
CUNY COMMUNITY COLLEGE AVERAGE	73	1954

2. Grade Point Average. Turning to grade point average, 60% of level A students had a three semester cumulative GPA of at least C. As Table 2.36 shows at the individual colleges 86% of Manhattan students achieved this level. Almost 70% of Kingsborough students also earned at least a C average, while Staten Island and NYCCC are close to the average. We note that Staten Island which was low on credit generation, exhibits a much stronger performance on GPA.

TABLE 2.36

Three Semester Cumulative Grade Point Average of Level A Students (Percent with 2.00 or Above): Rank Order of Community Colleges

College	%	N
Manhattan	86	180
Kingsborough	69	476
Staten Island	57	324
NYCCC	57	363
Queensborough	49	611
CUNY COMMUNITY COLLEGE AVERAGE	60	1954

Looking at the third semester alone (Table 2.37)one college, Manhattan greatly exceeds the community college average (71% of Manhattan students had a C or better in the third term, compared with 56% for community colleges as a whole). Queensborough (48%) falls somewhat below the average.

TABLE 2.37

Percent Level A Students Earning 2.00 or Better GPA in Third Semester: Rank Order of Community Colleges

College	%	N
Manhattan	71	173
NYCCC	59	353
Staten Island	58	309
Kingsborough	57	466
Queensborough	48	587
CUNY COMMUNITY COLLEGE AVERAGE	56	1888

As Table 2.38 indicates, the great majority of level A students at all colleges are able to achieve a 2.00 average at least once during their first three semesters. The range between the top school (Manhattan where 99% earned a C at least once) and the bottom ranked college, Queensborough, is relatively small.

TABLE 2.38

Percent Level A Students Earning 2.00 or Better GPA in at Least One of First Three Semesters: Rank Order of Community Colleges

College	%	N
Manhattan	99	173
Kingsborough	91	466
NYCCC	87	353
Staten Island	85	309
Queensborough	82	587
CUNY COMMUNITY COLLEGE AVERAGE	87	1888

3. Credits Earned and GPA. Thirty-five percent of the community level A's managed to generate both 36 credits and a 2.00 average over the course of their first three semesters (Table 2.39). Three colleges exceeded this average. Kingsborough (50%), Manhattan (47%), and NYCCC (39%). Staten Island (31%) was slightly below average and Queensborough (19%) was well below average.

TABLE 2.39

Percent of Level A Students with 36 Credits and a 2.00 GPA After Three Semesters: Community Colleges

College	%	N
Kingsborough	50	476
Manhattan	47	180
NYCCC	39	363
Staten Island	31	324
Queensborough	19	611
CUNY COMMUNITY COLLEGE AVERAGE	35	1954

Community College Comparisons: Regular Students

1. Credits Earned. Among the regular students Table 2.40 shows that 77% of Kingsborough students and 76% at Manhattan earned 36 or more credits over three semesters. They are considerably above the community college average of 61%. For the third semester alone (Table 2.41) Kingsborough and Manhattan again lead. About three-fourths at both schools earned 12 or more credits, as compared with 60% for the community colleges as a group. Kingsborough and Manhattan rank high on all three indices of credit generation. NYCCC is also slightly above average. Staten Island and Queensborough are below average.

2. Grade Point Average. We now turn to our indices of grade point average as presented in Tables 2.43, 2.44, and 2.45. The pattern noted for

Manhattan and Kingsborough on credits also holds for the case of GPA. Both rank at the top.

TABLE 2.40

Three Semester Cumulative Credits Earned (% Earning 36 or More Credits) By Regular Students: Rank Order of Community Colleges

College	%	N
Kingsborough	77	351
Manhattan	76	233
NYCCC	66	466
Staten Island	57	494
Queensborough	46	676
CUNY COMMUNITY COLLEGE AVERAGE	61	2220

TABLE 2.41

Percent of Regular Students Earning 12 Credits in Third Semester: Rank Order of Community Colleges

College	%	N
Kingsborough	74	351
Manhattan	73	233
NYCCC	69	466
Queensborough	54	676
Staten Island	43	494
CUNY COMMUNITY COLLEGE AVERAGE	60	2220

TABLE 2.42

Percent of Regular Students Earning 12 Credits in at Least One of First Three Semesters: Rank Order of Community Colleges

College	%	N
Manhattan	95	233
Kingsborough	93	351
NYCCC	90	466
Staten Island	84	494
Queensborough	77	676
CUNY COMMUNITY COLLEGE AVERAGE	86	2220

TABLE 2.43

Three Semester Cumulative Grade Point Average of Regular Students (Percent with 2.00 or Above): Rank Order of Community Colleges		
College	%	N
Manhattan	95	233
Kingsborough	88	351
NYCCC	81	466
Staten Island	78	494
Queensborough	73	676
CUNY COMMUNITY COLLEGE AVERAGE	80	2220

TABLE 2.44

Percent Regular Students Earning 2.00 or Better GPA in Third Semester: Rank Order of Community Colleges		
College	%	N
Manhattan	87	230
Kingsborough	81	344
NYCCC	74	459
Staten Island	74	480
Queensborough	68	656
CUNY COMMUNITY COLLEGE AVERAGE	75	2169

TABLE 2.45

Percent Regular Students Earning 2.00 or Better GPA in at Least One of First Three Semesters: Rank Order of Community Colleges		
College	%	N
Manhattan	100	230
Kingsborough	99	344
NYCCC	93	459
Queensborough	93	656
Staten Island	92	480
CUNY COMMUNITY COLLEGE AVERAGE	94	2169

3. Credit Generation and Grade Point Average Considered Simultaneously. On our combined index of GPA and credits (Table 2.46), Manhattan and Kingsborough are the leaders. Three-fourths of the regular students at these two schools earned both 36 credits and at least a 2.00 average. This compares with 58% of community college students as a group. Only Queensborough students seem to fall significantly below this level; 43% of them attained both criteria.

TABLE 2.46

Percent of Regular Students With 36 Credits and a 2.00 GPA After Three Semesters: Community Colleges

College	%	N
Manhattan	76	233
Kingsborough	74	351
NYCCC	64	466
Staten Island	55	494
Queensborough	43	676
CUNY COMMUNITY COLLEGE AVERAGE	58	2220

Comparisons of Performance of Level B, A, and Regular Students

Level B students closely resemble Level A students in credit generating performance at Manhattan college (Table 2.47). Indeed, the likelihood of each level of student achieving 36 or more credits is equivalent. The college with the greatest performance discrepancy is Queensborough where level A students are 2.3 times as likely to achieve 36 credits as level B students. When we compare level A students with regular students, we find that at Kingsborough college the level A's are slightly more likely to achieve 36 credits than are the regulars. Level A's and regulars are also rather similar in performance at NYCCC. Again, it is at Queensborough where the discrepancy between the two levels is greatest. Regulars are twice as likely to achieve 36 credits here as are level A's.

TABLE 2.47

Comparison of Level B, A, and Regular Students: Cumulative Credits Earned (Ratios), Community Colleges

College	Level B with Level A	Level A with Regular
Manhattan	1.0	1.6
NYCCC	1.4	1.3
Kingsborough	1.6	0.9
Staten Island	1.5	1.7
Queensborough	2.3	2.1

Table 2.48 presents similar comparisons for cumulative three semester grade point average. The performance discrepancy between level B and level A students is the smallest at NYCCC and Manhattan where the level A's are 1.1 and 1.2 times as likely to achieve a C average as their level B counterparts. The gap is greatest at Queensborough where the A's are 1.8 times as likely to achieve a C average. When we compare level A's with regulars, the performance discrepancy at Manhattan is rather small; regulars being only 1.1 times as likely to earn a C average as level A's. The discrepancy between regulars and A's is again greatest at Queensborough where the former are 1.5 times as likely to attain a 2.00 average.

TABLE 2.48

Comparison of Level B, A, and Regular Students: Three Semester Cumulative Grade Point Average (Ratios), Community Colleges

College	Level B with Level A	Level A with Regular
Manhattan	1.2	1.1
Staten Island	1.4	1.4
Queensborough	1.8	1.5
Kingsborough	1.4	1.3
NYCCC	1.1	1.4

CHAPTER 3

EFFECTS OF REMEDIATION

CHAPTER 3

EFFECTS OF REMEDIATION

Introduction

Before considering the analyses of remediation, we wish to describe the index we have used. A list of remedial courses offered on each campus has been compiled from college catalogs and discussions with administrative personnel. For the record of each student we calculated the number of remedial courses taken during the first and second semesters. We then generated two indices of remediation. First, we have the number of remedial courses taken during the first term. Second, we have the distribution of remedial courses taken during the first year. These indices constitute the definition of remediation in the analyses to follow.

It should be noted that in developing our remediation indices, we have combined the number of such courses taken without regard to content. That is, the number of remedial courses taken by a student is not distinguished by any other criteria such as whether these are Math courses, English courses, or some other type of remedial work. Moreover, there are significant variations in the structuring of remedial services which are not taken into account in the analyses to follow. For example, practices may vary regarding the following: (1) the number of hours for which remedial courses meet; (2) criteria for completing remedial work; (3) whether these courses carry credit.

We also note that certain types of data concerning compensatory education do not exist in our central data bank. For example, students who did not take remediation courses, but who did avail themselves of tutoring, would not be listed as having taken remedial work. In short, a student is listed as having taken remediation only if he registered for such a formal compensatory course and this is indicated on the computer tape received by us from each college.

Criteria for Assessing Effects of Remediation

Even with the limitations of the data available to us at this stage, it is important that we at least begin to cast some light on the effectiveness of remediation. (Future reports, utilizing the data then available, will undertake analyses of this topic in greater depth.) One might view remediation as effective if, within any high school average category, the students exposed to it do (1) as well, or (2) better than those who did not take it. The first criterion is evidence that remediation is beneficial if one assumes that within any high school average category (such as level B), those who take it have weaker academic preparation than those who do not. Under this assumption, one might at least expect that remediation will bring students to the level of achievement exhibited by the non-remedial group.

Impact of Remediation on Credit Generation and Grades: Senior Colleges

1. Level B Students. It must be stated at the outset that the number of level B students at the senior colleges is relatively small, and therefore, our findings may be rather unstable. We consider first cumulative three semester grade point average. The data are presented in Table 3.0.

TABLE 3.0

Three Semester Cumulative GPA by First Semester Remediation:
Level B Students at Senior Colleges
(Percent with GPA of 2.00 or Better)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Baruch	--	4	30%	20	19%	27	51
Brooklyn	55%	55	18	22	--	--	77
City College	0	9	7	15	--	2	26
Hunter	50	14	40	10	--	4	28
Lehman	38	8	20	10	38	24	42
Queens	--	1	--	--	--	1	2
York	60	10	64	14	38	29	53

In almost every case students who took no remediation were more likely to have a three semester cumulative grade point average of C or better. There appear to be two exceptions. At Lehman students who took two or more remedial courses in their first semester are just as likely to attain a 2.00 average as students who took no remediation. At York, those who took one remedial course are as likely to attain a C average as those who took no remediation. However, the findings are based on small numbers of students.

Data on three semester cumulative GPA in relation to full year remediation are presented in Table 3.1.

TABLE 3.1

Three Semester Cumulative GPA by Full Year Remediation:
Level B Students at Senior Colleges
(Percent with 2.00 or Better GPA)

College	Rem. Both Terms	N	Rem. Fall Only	N	Rem. Spring Only	N	No Rem	N	Total N
Baruch	24%	34	23%	13	-	1	-	3	51
Brooklyn	13	8	21	14	-	6	55%	49	77
City College	13	16	-	1	-	5	-	4	26
Hunter	-	-	36	14	-	-	50	14	28
Lehman	37	19	27	15	-	1	43	7	42
Queens	-	-	-	1	-	-	-	1	2
York	38	29	64	14	-	2	63	8	53

The findings are similar to those noted in Table 3.0. Whether students took remediation in the fall only or for both terms, they are not as likely as students who took no remediation to earn a C average over three semesters, except in the case of York.

It is likely that remediation requires some time to take effect. Therefore, how a student does in his third semester provides a more strategic assessment than cumulative indices. Table 3.2 provides the data for grade point average in the third semester.

TABLE 3.2

Grade Point Average in Third Semester by First Semester Remediation:
Level B Students at Senior Colleges
(Percent with 2.00 or Better GPA)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Baruch	-	4	50%	20	35%	26	50
Brooklyn	35%	55	18	22	-	-	77
City College	11	9	29	14	-	2	25
Hunter	31	13	50	10	-	4	27
Lehman	63	8	40	10	38	23	41
Queens	-	1	-	-	-	1	2
York	50	10	50	14	24	29	53

At City College and Hunter students who took one remedial course were more likely to attain a C average in their third semester than students who took no remediation. At York those who took one remedial course were just as likely to earn a C as those who took no remediation. At Brooklyn and Lehman those who did not have remedial work were more likely to attain a C as compared with those who did have remediation.

We now turn to the data on credit generation for the third semester which are presented in Table 3.3.

TABLE 3.3

Credits Earned in Third Semester by First Semester Remediation:
Level B Students at Senior Colleges
(Percent Earning 12 or More Credits)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Baruch	-	4	45%	20	33%	27	51
Brooklyn	27%	55	23	22	-	-	77
City College	33	9	13	15	-	2	26
Hunter	21	14	10	10	-	4	28
Lehman	38	8	60	10	42	24	42
Queens	-	1	-	-	-	1	2
York	50	10	21	14	31	29	53

The data suggest that at Lehman College, students who took one remedial course were more likely to earn 12 credits in their third semester than students who had no remediation. Again, however, the number of students involved is very small. At Brooklyn the data suggest that students with one remedial course are about as likely (23%) to earn 12 credits as students who have had no remediation (27%).

To summarize our previous discussions on both GPA and credit generation, our findings suggest some impact of remediation on a few senior college campuses (lehman, York, City College, and Hunter). However, due to the small numbers of students involved, one cannot have much confidence in the results. Much larger numbers are involved for the level A students. We now turn to these analyses.

2. Level A Students. We first consider the relation of remediation to three semester cumulative grade point average. The data are presented in Tables 3.4 and 3.5. With regard to the effect of remediation during the fall term (Table 3.4), we find no instance in which students who took remedial work performed as well as those who did not. However, there are a few places in which the difference in performance between those who took one remedial course and those who took none is relatively small.

TABLE 3.4

Three Semester Cumulative GPA by First Semester Remediation: Level A Students at Senior Colleges (Percent with GPA of 2.00 or Better)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Baruch	62%	121	56%	225	38%	95	501
Brooklyn	65	602	56	86	--	1	689
City College	52	318	39	275	36	62	655
Hunter	74	332	62	245	60	74	651
Lehman	66	429	51	91	44	112	632
Queens	81	133	74	204	68	60	397
York	78	162	71	104	68	138	404

This is true at Baruch, Hunter Queens, and York. Students at these colleges who took one remedial course were only slightly less likely to achieve a three semester cumulative GPA of C or better. While students who took one remedial course were generally more likely to attain a C average than students who took two remedial courses, at City College, Hunter, and York the differences are too small to be significant.

We now consider the effects of full year remediation on three semester cumulative GPA (Table 3.5).

TABLE 3.5

Three Semester Cumulative GPA by Full Year Remediation: Level A Students at Senior Colleges (Percent with 2.00 or Better GPA)

College	Rem. Both Terms	N	Rem. Fall Only	N	Rem. Spring Only	N	No Rem.	N	Total N
Baruch	49%	233	54%	87	-	9	6[illegible]%	172	501
Brooklyn	46	13	57	74	63%	30	65	572	689
City College	38	263	41	74	44	77	55	241	655
Hunter	41	[illegible]7	63	292	-	13	75	319	651
Lehman	28	46	52	157	59	32	67	397	632
Queens	63	56	75	208	50	12	84	121	397
York	66	140	73	102	-	8	78	154	404

Again, we find no instance in which students who took remediation outperformed those who took none. However, at Brooklyn those who took remediation only in the spring did just about as well as those who took no remediation at all. Of those who took a remedial course in the spring, 63% had a cumulative GPA of 2.00 or better, while of those who had no remediation the entire year, 65% managed a C average. It is also the case on all campuses that students who took remediation in the fall only did better than those who took remediation in both terms. When one compares the former group (fall only) with those who took no remediation, there are four colleges in which the difference in performance superiority is relatively small. This is the case at Baruch, Brooklyn, Queens, and York. At these schools the difference between the remedials and the non-remedials is never greater than 9 percentage points.

We now consider the relation of remediation to grade point average in the third semester, as presented in Table 3.6.

TABLE 3.6

Grade Point Average in Third Semester by First Semester Remediation: Level A Students at Senior Colleges (Percent with 2.00 or Better GPA)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Baruch	62%	177	63%	223	51%	94	494
Brooklyn	60	594	41	86	--	1	681
City College	52	306	46	267	35	60	633
Hunter	67	319	58	235	57	72	625
Lehman	69	425	59	90	56	108	623
Queens	67	132	61	195	52	60	387
York	77	159	71	103	60	138	400

In general we find that students who took no remediation during their first term were more likely to earn a C average in their third semester. However, there is one exception to this pattern. At Baruch students who took one remedial course were just as likely to earn a C as those who took no remediation. In addition, at Hunter and Lehman students who took two remedial courses were almost as likely to earn a C as those who took one remedial course. However, at both of these schools the remedial groups did not perform as well as the non-remedial level A's.

Table 3.7 presents the results for credit generation. In general, students who have not taken remediation are more likely to earn 12 or more credits in their third semester.

TABLE 3.7

Credits Earned in Third Semester by First Semester Remediation:
Level A Students at Senior Colleges
(Percent Earning 12 or More Credits)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Baruch	59%	181	53%	225	44%	95	501
Brooklyn	57	602	41	86	--	1	689
City College	48	318	33	275	26	62	655
Hunter	42	332	34	245	34	74	651
Lehman	67	429	58	91	50	112	632
Queens	51	133	46	204	40	60	397
York	54	162	57	104	51	138	404

However, there is one important exception to this pattern. At York students who took one remedial course in their first term were as likely to earn 12 credits in their third term as those who had taken no remediation.

Moreover, those York students who took two remedial courses were also as likely as those students who had taken no remediation to generate this many credits. Therefore, at this college it appears that remedial work had some beneficial impact. At Queens 51% of the non-remedials earned 12 or more credits in their third term, compared with 46% of those who took one remedial course. This is a relatively small difference and suggests that the remedial group is doing almost as well as the non-remedial group. The same situation is observed at Baruch where there is 6% difference in favor of the non-remedials. With regard to the comparison of those who took one remedial course with those who took two or more, the former are more likely to earn 12 credits in all cases with the exception of Hunter where there is no difference. Moreover, most of the differences are relatively small (around 6 or 7 percentage points).

3. Regular Students. As Table 3.8 indicates, it cannot be assumed that regular students do not take remedial work. At certain colleges the data show that students who take remediation are as likely as non-remedials

TABLE 3.8

Three Semester Cumulative GPA by First Semester Remediation:
Regular Students at Senior Colleges
(Percent with GPA of 2.00 or Better)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Baruch	86%	184	81%	139	84%	19	342
Brooklyn	88	2,435	100	10	-	-	2,445
City College	84	947	68	234	48	23	1,204
Hunter	90	1,082	81	226	79	47	1,355
Lehman	90	601	81	37	77	34	672
Queens	95	1,444	91	691	93	29	2,164
York	90	49	72	18	91	21	88

to have a three semester cumulative GPA of at least C. Indeed, at Brooklyn the former do better than the latter, but it must be noted that only ten students took remedial work. At York those who took two or more remedial courses performed as well as those who had no remedial work. At Queens and Baruch there is little difference in the academic performance of the remedials and the non-remedials.

Table 3.9 considers the effects of full year remediation on cumulative GPA for regular students.

TABLE 3.9

Three Semester Cumulative GPA by Full Year Remediation:
Regular Students at Senior Colleges
(Percent with 2.00 or Better GPA)

College	Rem Both Terms	N	Rem Fall Only	N	Rem Spring Only	N	No Rem	N	Total N
Baruch	83%	103	80%	55	-	3	86%	181	342
Brooklyn	-	3	-	7	-	13	88	2422	2445
City College	63	178	73	79	62%	55	86	892	1204
Hunter	40	10	83	263	-	5	90	1077	1355
Lehman	-	7	81	64	73	26	91	575	672
Queens	77	66	92	654	86	28	95	1416	2164
York	72	18	91	21	-	2	92	47	88

The findings both summarize and add to the information already presented in Table 3.8. Although both tables can be summarized by saying that at three schools (Baruch, York, and Queens) students who took some form of remediation were as likely as the non-remedials to achieve a C or better average, the outcomes differ in one important respect. Only at Baruch are students who take remediation both terms as likely to do as well as those students who had no remediation. At Queens and York it is those students who took remediation in

the fall term only who compare favorably with the non-remedials. At all other senior colleges those regular students who took no remediation are the most likely to have a C or better average at the end of three semesters.

In considering performance on grades for the third semester (Table 3.10) we find that at Baruch students who took two remedial courses were more likely to achieve a C average in their third semester than students who took no remediation.

TABLE 3.10

Grade Point Average in the Third Semester by First Semester Remediation: Regular Students at Senior Colleges (Percent with 2.00 or Better GPA)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Baruch	86%	183	78%	137	95%	19	339
Brooklyn	86	2429	80	10	--	--	2439
City College	80	921	66	229	39	23	1173
Hunter	80	1069	68	219	62	47	1335
Lehman	89	599	76	37	82	34	670
Queens	86	1436	79	683	83	29	2148
York	88	49	78	18	76	21	83

They were also more likely to achieve this average than students who took one remedial course. At Queens students who took two remedial courses were about as likely to earn a 2.00 as students who took no remediation. Students who took two remedial courses did better than students who took one remedial course at the following colleges: Baruch, Lehman, and Queens. There was no difference between the two groups at York. At Brooklyn, City College, and Hunter, students who took no remediation outperformed those who had taken some.

Table 3.11 considers the effects of remediation on credit generation for the third semester.

TABLE 3.11

Credits Earned in the Third Semester by First Semester Remediation: Regular Students at Senior Colleges (Percent Earning 12 or More Credits)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total	N
Baruch	84%	184	68%	139	63%	19		342
Brooklyn	81	2435	70	10		—		2445
City College	61	947	47	234	39	23		1204
Hunter	68	1082	58	226	57	47		1355
Lehman	83	601	68	37	88	34		672
Queens	77	1444	71	691	55	29		2164
York	67	49	45	18	43	21		88

In general, regular students who took no remediation were more likely to earn 12 credits in their third term. Lehman is an exception to this pattern. At this institution 83% of the students who took no remediation generated 12 or more credits, while 88% of those who took two or more remedial courses earned at least this many credits. At Queens the non-remedials were more likely to earn 12 credits than those who took one remedial course. However, the difference is relatively small.

4. Comparisons Across High School Average. A question which may be asked about remediation in this: to what extent does remedial work eliminate the differences among different levels of students? We consider this question by re-inspecting Tables 3.6 and 3.10, 3 7 and 3.11. With regard to grade point average in the third semester we do not find any cases where remediation has enabled students to perform as well as students at the next highest level. For example, there is no case in which level A students in remediation outperform regular students. We do find the opposite: students at one level who have taken no

remediation outperform students at a higher level who have taken remediation. For example, level A students at Hunter who took no remediation are more likely to earn a 2.00 average than regular students who took two or more remedial courses. Of course, this cannot be construed as a benefit of remediation.

With regard to credit generation, Table 3.11 showed that at York level A students who took one remedial course were more likely to earn 12 credits in their third term than regular students who took one remedial course. At Lehman level B students who took one remedial course were more likely to earn 12 credits than level A students who took two remedial courses (it should be noted, however, that there were only 10 Lehman students in this level B category).

Summary of Findings for Senior Colleges

The above discussion does not indicate that remediation was highly effective for the first open admissions class. However, we wish to note certain instances where the benefit of remediation is at least suggested. City College and Hunter level B students who took remedial work were more likely to earn a C average in their third semester than those who had no remediation. Level B's at Lehman were more likely to earn 12 credits in the third term if they had remediation.

Level A's at York who took remedial work were as likely to earn 12 credits as those who took no remediation. The same is true at Baruch with regard to third semester grade point average.

Regular students at Baruch who took remediation were more likely than non-remedials to earn a C average in the third term. Those at Lehman

who took two or more remedial courses were also more likely than the non-remedials to earn 12 credits in their third semester.

We do not believe that these findings as yet constitute a clearly defined pattern. Data for succeeding semesters and for other classes are required before a more conclusive assessment of remedial effects at the senior colleges can be presented. The reader should also bear in mind that the effects of tutoring and other support services have yet to be assessed. Such an assessment is particularly important for those open admissions students who took no remediation. Although they were in no formal remediation, these other services may have facilitated their surprising performances.

Analyses of Grade Point Average and Credit Generation: Community Colleges

1. Level B Students. Table 3.12 indicates that remedial work has had an impact at three of the four community colleges.

TABLE 3.12

Three Semester Cumulative GPA by First Semester Remediation:
Level B Students at Community Colleges
(Percent with GPA of 2.00 or Better)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Kingsborough	49%	229	51%	178	50%	12	419
Manhattan	70	158	--	--	--	--	158
NYCCC	62	181	52	29	37	132	342
Queensborough	27	99	35	125	22	209	433
Staten Island	41	73	41	61	38	64	198

At Kingsborough and Staten Island, students who take either one or two or more remedial courses are as likely to have earned a three semester cumulative GPA of C as are those students who take no remediation. At

Queensborough, those students who took one remedial course do better than the non-remedials, but the same pattern does not persist for those students who took two or more remediation courses.

A similar pattern emerges from inspection of Table 3.13 which considers the effects of remediation over the full year on cumulative three semester grade point average.

TABLE 3.13

Three Semester Cumulative GPA by Full Year Remediation:
Level B Students at Community Colleges
(Percent with GPA of 2.00 or Better)

College	Rem. Both Terms	N	Rem. Fall Only	N	Rem. Spring Only	N	No Rem.	N	Total N
Kingsborough	63%	91	40%	99	48%	29	50%	200	419
Manhattan	--	--	--	--	--	1	70	157	518
NYCCC	27	60	48	101	83	6	62	175	342
Queensborough	21	58	28	276	--	2	28	97	433
Staten Island	50	30	36	95	43	14	41	50	198

At Kingsborough, 50% of students who took no remediation during their freshman year attained at least a 2.00 average after three semesters. However, 63% of those who took remedial work both terms of their freshman year reach this level. At Staten Island, 41% of those who took no remedial work earned a C or better compared with 50% of those who took remediation both terms. At Queensborough, students are not doing as well in general as at Kingsborough or Staten Island. Nevertheless, those who took remediation in the fall performed as well as those who took no remediation at all.

Table 3.14 shows the relation of remediation to third semester GPA.

TABLE 3.14

Grade Point Average in Third Semester by First Semester Remediation:
Level B Students at Community Colleges
(Percent with 2.00 or Better GPA)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N Level B
Kingsborough	47%	215	48%	166	44%	11	392
Manhattan	57	150	--	--	--	--	150
NYCCC	53	179	31	29	35	121	329
Queensborough	36	93	40	119	26	192	404
Staten Island	49	71	51	57	38	58	186

The performance of remedial students is noteworthy at Kingsborough, Queensborough, and Staten Island. At these three institutions students who took one remedial course performed as well as those who took no remediation.

We now consider the effects of remediation on credit generation in the third semester. The data are presented in Table 3.15. At Kingsborough, those who took one remedial course in the fall were as likely to earn 12 credits in their third semester as those who took no remediation.

TABLE 3.15

Credits Earned in Third Semester by First Semester Remediation:
Level B Students at Community Colleges
(Percent Earning 12 or More Credits)

College	No Rem.	N	1 Rem.	N	2 or More Rem.	N	Total N
Kingsborough	49%	229	47%	178	42%	12	419
Manhattan	49	158	-	-	-	-	158
NYCCC	50	181	28	29	35	132	342
Queensborough	21	99	18	125	16	209	433
Staten Island	27	73	35	61	26	64	198

At Staten Island, those who took one remedial course were more likely to earn 12 credits, as compared with those who had no remedial work. At Queensborough, students with one remedial course also did about as well as those who had no remediation. Only at NYCCC did the non-remedial students seem to do significantly better than the remedial students.

To summarize, when both GPA and credits earned are considered, level B students who took remediation at Kingsborough, Queensborough and Staten Island are doing as well as students who did not have remediation.

2. Level A Students. Inspection of Table 3.16 again shows apparent benefits of remediation at Kingsborough college.

TABLE 3.16

Three Semester Cumulative GPA by First Semester Remediation:
Level A Students at Community Colleges
(Percent with GPA of 2.00 or Better)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N Level A
Kingsborough	70%	263	66%	179	74%	34	476
Manhattan	86	179	-	-	-	-	179
NYCCC	61	221	63	38	46	104	363
Queensborough	56	228	52	178	38	210	616
Staten Island	66	158	52	96	41	70	324

While 70% of the level A students who had no remediation earned a three semester GPA of C or better, 74% of those who had two or more remedial courses attained this level. Moreover, 66% of those with one remedial course reached a C average, thus indicating that they do about as well as those with no remediation. At NYCCC, students with one remedial course also do as well as those with no remediation. However, at this college those with two remedial courses perform below the level of the first two groups. At Queensborough there is little difference between those who take no remediation and those who take one remedial course. For both groups somewhat better than 50% of the students attain a three semester cumulative GPA of 2.00 or better. At Staten Island non-remedial students do significantly better than those who take remediation.

We now consider the effects of remedial work over the course of the full year (Table 3.17).

TABLE 3.17

Three Semester Cumulative GPA by Full Year Remediation:
Level A Students at Community Colleges
(Percent with GPA of 2.00 or Better)

College	Rem Both Terms	N	Rem Fall Only	N	Rem Spr. Only	N	No Rem	N	Total N
Kingsborough	70%	121	63%	92	53%	15	71%	248	476
Manhattan	-	-	-	-	-	4	85	175	179
NYCCC	39	56	58	86	60	10	61	211	363
Queensborough	21	44	48	344	-	1	56	227	616
Staten Island	33	36	51	130	-	2	67	156	324

We note that at Kingsborough those who have had remediation in both terms of their freshman year are just as likely to attain a three semester cumulative grade point average of C as those who have had no remediation. At NYCCC those who took remediation in the fall only do as well as those who have had no remediation. At Queensborough and Staten Island, however, those students who have had no remediation outperform those who have had some.

Table 3.18 presents the third semester data for grade point average.

TABLE 3.18

Grade Point Average in Third Semester by First Semester Remediation: Level A Students at Community Colleges (Percent with 2.00 or Better GPA)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Kingsborough	58%	258	53%	174	65%	34	466
Manhattan	72	172	-	-	-	-	172
NYCCC	65	216	54	37	48	100	353
Queensborough	53	219	51	171	38	195	585
Staten Island	64	152	51	91	53	66	309

Two colleges stand out: Kingsborough and Queensborough. At Kingsborough 65% of those with two or more remedial courses attained at least a C average. This compares with 58% of thosw who had no remedial work. At Queensborough students with one remedial course did as well as those who had no remedial work.

Data on credit generation for the third semester are presented in Table 3.19.

TABLE 3.19

Credits Earned in Third Semester by First Semester Remediation:
Level A Students at Community Colleges
(Percent Earning 12 or More Credits)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Kingsborough	61%	263	56%	179	65%	34	476
Manhattan	50	179	--	--	--	--	179
NYCCC	56	221	55	38	46	104	363
Queensborough	40	228	37	178	33	210	616
Staten Island	38	158	29	96	36	70	324

Again we find that the remedial groups are doing at least as well as the non-remedials, although the patterns differ from college to college. At Kingsborough 65% of those who took two or more remedial courses earned 12 credits in their third semester. This compares with 61% of those who took no remediation. One interesting facet of these data involves NYCCC. Whereas remediation did not seem effective for level B students at this school, it does seem to have some impact for the level A group. At NYCCC students who took one remedial course perform as well as those who had no remedial work. The same is true at Queensborough. However, at Staten Island it is again those with two or more remedial courses who perform as well as those with no remediation. In short, at every college except Manhattan (where no formal remediation was given), at least one remedial group does as well as the non-remedials.

3. Regular Students. Table 3.20 indicates that remediation does not enhance the probabilities of attaining a three semester cumulative grade point average of C or better for regular students. At Kingsborough, however, students who have taken one remedial course are reasonably close to those who have taken none (83% for the remedials as against 89% for the non-remedials). At NYCCC the same is true.

TABLE 3.20

Three Semester Cumulative GPA by First Semester Remediation:
Regular Students at Community Colleges (Percent with GPA of 2.00 or Better)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Kingsborough	89%	267	83%	77	--	7	351
Manhattan	96	228	50	-	--	-	230
NYCCC	86	357	79	33	55%	76	466
Queensborough	80	404	68	170	56	101	675
Staten Island	82	369	68	82	58	43	494

Table 3.21 presents results for full year remediation.

TABLE 3.21

Three Semester Cumulative GPA by Full Year Remediation:
Regular Students at Community Colleges (Percent with 2.00 or Better GPA)

College	Rem Both Terms	N	Rem Fall Only	N	Rem Spring Only	N	No Rem	N	Total N
Kingsborough	88%	41	81%	43	-	11	89%	256	351
Manhattan	--	-	-	2	-	2	96	226	230
NYCCC	50	34	68	75	53	19	88	338	466
Queensborough	19	16	60	255	-	2	80	402	675
Staten Island	68	31	64	94	78	9	82	360	494

We find that at Kingsborough, students who took remediation both terms were as likely to earn a C average as those who took no remediation. At Queensborough, NYCCC, and Staten Island, the performance of the non-remedial group is superior to those who have taken remediation.

Data on third semester GPA appear in Table 3.22

TABLE 3.22

Grade Point Average in Third Semester by First Semester Remediation: (Percent with 2.00 or Better GPA)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Kingsborough	82%	260	78%	77	71%	7	344
Manhattan	88	225	50	--	--	-	227
NYCCC	79	355	58	31	56	73	459
Queensborough	75	391	61	167	49	96	654
Staten Island	75	359	77	79	62	42	480

Remedial students at Staten Island are as likely to earn a C average as the non-remedial students. The same is true at Kingsborough. However, at NYCCC and Queensborough the non-remedial group is clearly superior.

Table 3.23 considers remediation in relation to credit generation for the third semester.

TABLE 3.23

Credits Earned in Third Semester by First Semester Remediation: Regular Students in Community Colleges (Percent Earning 12 or More Credits)

College	No Rem	N	1 Rem	N	2 or More Rem	N	Total N
Kingsborough	75%	267	73%	77	86%	7	351
Manhattan	74	228	50	--	--	-	230
NYCCC	75	357	52	33	50	76	466
Queensborough	57	404	52	170	43	101	675
Staten Island	44	369	40	82	44	43	494

At Kingsborough those who take remediation do as well as those who do not. Seventy-five percent of the non-remedial students earned 12 or more credits. This compares with 73% for the group which took one remedial course.

Eithty-six percent of those who took two or more remedial courses earned 12 credits, but this figure is based on only seven students. At Staten Island students who take remediation (either one or more than two courses) perform as well as those who take no compensatory work. At Queensborough the non-remedial students are slightly superior to those who have taken one remedial course (57% as against 52% earning 12 credits in their third semester).

Community College Summary

Our data on the impact of remediation at the community colleges reveal numerous instances in which remediation has positive effects. Every community college which offered formal remediation courses showed evidence of some beneficial effects. Remedial work at Kingsborough seems to have worked more consistently than at any other school.

CHAPTER 4

ANALYSES OF ATTRITION

CHAPTER 4

ANALYSES OF ATTRITION

Introduction

One of the major aims of the CUNY open admissions model has been to avoid the high attrition rates characteristic of open admissions plans in other universities. While some of the CUNY attrition data have been publicly available for some time, there have been no analyses of the underlying characteristics of dropouts. The purpose of this section is to begin such analyses with the data available to us.

Before moving to this discussion it is necessary first to define the concept of attrition, as utilized here. The idea is straightforward: the attrition rate both for the fall 1970 semester and the spring 1971 semester is simply the percentage of students present in one semester who are no longer present at their original college or at any other CUNY college in the semester immediately following. That is, we do not include in attrition statistics those students who left their original college to transfer to another college within the CUNY system. (We also do not include those who merely registered at a college and then never attended any classes.)

The discussion in this chapter will proceed in the following manner. First we look at CUNY attrition in relation to national data. Next we consider attrition in the first semester for the fall 1970 freshmen. We shall analyze the relationship between attrition and high school average, grade point average, credit generation, credit ratio, remediation, and restricted program placement. We then carry out a parallel set of analyses for attrition in the second semester. Third we consider those students who dropped out and

returned.

CUNY Attrition Compared with National Data

One fear expressed by many has been that the CUNY open admissions model might become a revolving door in spite of all efforts to keep the attrition rate down. It is therefore, of great interest to compare the CUNY dropout rates with national data. Table B provides the information.

TABLE B

Comparison of CUNY and National One Year Attrition Rates (in Percents)

ATTRITION			
2 Year Colleges		4 Year Colleges	
National*	CUNY**	National*	CUNY**
34	38	22	20.5

* Source: Alexander Astin, College Dropouts: A National Profile, Washington, D.C., American Council on Education, 1972.

** These are the "official" CUNY data provided by the Office of Data Collection.

It can be seen that attrition for the CUNY two-year colleges is slightly higher than is the case nationally. At the four-year colleges there is essentially no difference between the national and local data.

The above data would be more informative if we could break it down by high school average categories. Table B[1] shows the findings.

TABLE B[1]

Comparison of CUNY and National One Year Attrition Rates by High School Average

High School Averages	2 Year Colleges		4 Year Colleges	
	National*	CUNY**	National*	CUNY**
80+	32%	34%	18%	14%
75-79	34%		30%	29
70-74	37	38	38%	
Less than 70	43	42	45	37

* Source: Alexander Astin, College Dropouts: A National Profile, Washington, D.C., American Council on Education, 1972.

**These are the "official" CUNY data provided by the Office of Data Collection.

As the table indicates, the holding power of the community colleges compares very well with the two-year colleges nationally. This is true for all levels of high school average. At the CUNY senior colleges, the record looks even better. Particularly noteworthy is the finding that the dropout rate is 8% less for the level B students (those with high school averages below 70). Even though CUNY has a greater proportion of students at the lower end of the high school average distribution, and even though its students are more likely to come from low income families (a factor which increases the likelihood of dropout), the attrition comparisons are quite favorable.

Analyses of Attrition After One Semester: Senior Colleges.

The purpose of this section is to assess the relation between academic performance criteria and attrition. We shall consider the relation between

attrition and high school average, grade point average, credit generation, remediation, and restricted program placement. The data are presented in Tables 4.0, 4.1, 4.2, 4.3, and 4.4.

1. Attrition and High School Average. The data are presented in Table 4.0. The attrition rate for level B students varies from a low of 14% for York students to a high of 22% for City College students (we are excluding Queens due to the small number of level B's). The senior college average is 19%. With the exception of York, all of the colleges cluster rather closely around this figure.

For the level A students, Baruch, Brooklyn, and Queens have the lowest rates (9%, 8%, and 10% respectively). Hunter (17%) and Lehman (16%) have the highest rates. The senior college average is 12%.

Among regular students the overall senior college dropout rate was 7%. The lowest individual attrition rate was at Brooklyn (4%). The highest rate was at York, where 15% of the regular students did not return for the second semester.

With the exception of York, the relationship between high school average and attrition is linear. That is, attrition rates are always higher for level B students than for level A students, and the rate for the level A's is always higher than for the regulars. At York, there is essentially no difference in dropout rate across high school average categories. Regular students at York are just as likely to drop out as level B students.

For the senior colleges, as a group, the level B attrition rate is almost three times higher than the rate for regular students. When we look at the individual colleges, there are departures from this result. At Brooklyn, the dropout rate of level B's is more than four times greater than for the regular students. At City College the B's are almost four

times as likely to drop out as the regulars. At Hunter and Lehman, the level B's are only about twice as likely to drop out as the regular students.

At Hunter, Lehman, and York, level B's are scarcely more likely to drop out than level A's. However, at Baruch, Brooklyn, and City College, the B's are twice as likely to drop out than are the A's. In short, there are differences among individual colleges in the extent to which high school average is related to attrition rates.

TABLE 4.0

First Semester Attrition Rates By High School Average:
Senior Colleges

	LEVELS					
	B		A		Regular	
College	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts
Baruch	17%	14	9%	62	6%	25
Brooklyn	18	26	8	67	4	104
City College	22	8	11	88	6	88
Hunter	21	8	17	141	11	182
Lehman	17	17	16	156	9	80
Queens	67	8	10	53	6	150
York	14	10	13	67	15	17
CUNY Sr. Coll. Av.	19	91	12	634	7	646

2. Attrition and Credit Generation. The data are presented in Table 4.1. One can see that the attrition rate is very high among those who did not earn any credits in their first term. This is true for all levels of students at all colleges. It should be pointed out that the usual pattern of students in this category is to drop out before the semester is completed. Thus, no credits are earned. The pattern is not one of completing the semester, earning no credits, and then dropping out. Only for level B's does the sequence become problematic since many of them had a full schedule of remedial courses which offered no credits.

In general, the more credits a student earns, the less likely is he to drop out. For the level B students this is clearly the case although the numbers involved are very small. Only at Baruch is there a suggestion that this relationship does not hold.

For the level A students the attrition rate is very low for those who earned 12 or more credits. The rate does not rise dramatically for those who earned less than 12 credits. For example, at Baruch 2% of those who earned 12 or more credits dropped out, while 5% of those who earned less than 12 credits dropped out. Only at Lehman does the attrition rate seem high when the students earning less than 12 credits (drop out at the rate of 17%) are compared with those who earned more than 12 credits (a rate of 4%).

For regular students the only exception to the trends noted above occurs at York where students earning 12 or more credits are more likely to drop out than those who earned between 1 and 11 credits.

TABLE 4.1

First Semester Attrition in Relation to Credits Earned:
Senior Colleges

LEVEL B

College	12 or More Credits Earned		1-11 Credits Earned		No Credits Earned		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	8%	12	4%	55	69%	16	83
Brooklyn	4	28	12	73	39	41	142
City Coll.	0	5	12	25	83	6	36
Hunter	0	6	4	23	70	10	39
Lehman	0	11	11	71	50	18	100
Queens	-	3	71	7	-	2	12
York	0	14	12	50	57	7	71

LEVEL A

College	12 or More Credits Earned		1-11 Credits Earned		No Credits Earned		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	2%	242	5%	360	61%	66	668
Brooklyn	1	433	6	382	68	56	871
City Coll.	2	330	9	423	60	73	826
Hunter	4	295	12	454	72	107	856
Lehman	4	542	17	353	74	101	996
Queens	3	222	10	254	57	37	513
York	7	246	11	256	67	33	535

REGULAR

College	12 or More Credits Earned		1-11 Credits Earned		No Credits Earned		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	2%	266	7%	120	72%	18	404
Brooklyn	2	2287	7	461	74	39	2787
City Coll.	2	1010	8	340	70	59	1409
Hunter	5	1129	13	438	83	87	1654
Lehman	4	698	17	116	83	35	849
Queens	3	1842	10	639	69	49	2530
York	14	79	0	31	100	6	116

3. Attrition and grade point average. Inspection of the data in Table 4.2 indicates that there are no exceptions to the overall finding that grade point average is very strongly related to attrition at all levels. However, there is wide variation in the degree to which grade point average is associated with attrition. Among level B students at Baruch, those who earn less than a 2.00 are more than three times as likely to drop out as those who earn above a 2.00 average. At Lehman none of the level B students who earned a C average dropped out, while 18% of those below this average failed to return for their second semester. At York, Hunter and City College, students who did not earn a C average were more likely to drop out than their peers who did attain this level but the differences in attrition rates were smaller.

For the level A students, the dropout rate among those who earned a 2.00 or better varied from a low of 2% at Baruch to a high of 8% at York. The range is very large among those who did not earn at least a C average. It varies from a low of 5% at Baruch to a high of 30% at Queens. At the latter school, the probability of dropping out for a student who did not earn a C average was more than six times greater as compared with students who did reach this level.

For regular students the dropout rate is very low among those who attained a 2.00 or better. One exception to this finding is York where the rate is 10%. Queens is again the college where the probabilities of dropping out increase most drastically if students do not attain a 2.00 average. At this campus such students were ten times more likely to leave than those students who earned at least a C average in their first term. At Baruch and York such slow starting students were only about three times more likely to drop out.

TABLE 4.2

First Semester Attrition in Relation to Grade Point Average:
Senior Colleges

L E V E L B

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	5%	22	18%	57	-	4	83
Brooklyn	9	53	23	88	-	1	142
City College	13	8	22	27	-	1	36
Hunter	11	20	20	17	-	2	39
Lehman	0	13	18	82	-	3	98
Queens	60	10	-	-	-	2	12
York	11	38	18	33	-	-	71

L E V E L A

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	2%	338	5%	323	60%	5	666
Brooklyn	4	514	14	355	-	1	870
City College	3	347	15	467	78	9	823
Hunter	7	570	30	259	80	25	854
Lehman	6	402	21	579	83	12	993
Queens	6	456	38	40	53	15	511
York	8	367	21	164	-	3	534

R E G U L A R

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	2%	316	7%	86	-	2	404
Brooklyn	2	2216	9	570	-	1	2787
City College	3	1082	18	319	-	4	1405
Hunter	6	1395	33	244	93%	15	1654
Lehman	5	631	21	216	-	1	848
Queens	5	2459	50	56	67		2530
York	10	92	33	24	-		116

TABLE 4.3

First Semester Attrition in Relation to Credit Ratio:
Senior Colleges

LEVEL B

College	.75 or Better		Less Than .75		No Credit Ratio		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	6%	48	0%	19	67%	12	79
Brooklyn	6	53	15	48	38	40	141
City Coll.	8	13	12	17	80	5	35
Hunter	7	14	0	15	63	8	37
Lehman	7	30	12	52	50	14	96
Queens	57	7	-	3	-	-	10
York	5	39	16	25	57	7	71

LEVEL A

College	.75 or Better		Less Than .75		No Credit Ratio		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	3%	448	6%	154	61%	59	661
Brooklyn	2	598	9	217	69	54	869
City Coll.	3	535	13	218	61	61	814
Hunter	6	530	15	219	70	81	830
Lehman	5	638	19	257	75	87	982
Queens	6	435	20	41	60	20	496
York	7	379	15	123	63	30	532

REGULAR

College	.75 or Better		Less Than .75		No Credit Ratio		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	3%	353	6%	33	75%	16	402
Brooklyn	2	2494	7	254	74	38	2786
City Coll.	2	1212	13	148	75	51	1401
Hunter	6	1405	12	162	81	72	1639
Lehman	5	733	20	81	82	34	848
Queens	4	2392	19	89	71	34	2515
York	12	95	0	15	100	6	116

4. Attrition in Relation to Credit Ratio. The credit ratio summarizes the relationship between credits attempted and credits earned. The higher the ratio, the more successful is the student in earning the credits for which he registers. Those who have no credit ratio are generally the students who dropped out during the semester and earned no credits. The other two categories are mostly comprised of students who stayed for the semester, earned less credits than they attempted, and then left school.

Table 4.3 shows three cases which depart from the general finding that students with credit ratios of less than .75 are more likely to drop out: These are at Baruch and Hunter for level B students, and at York for regular students. (However, at Hunter only one case is involved).

5. First semester Attrition in Relation to Remediation. For level B students we note three patterns in the relation of remediation to attrition. (See Table 4.4). The first is exemplified by Baruch, where the attrition rate among students who received no remediation is 40%, but dropped to 17% for students with one remedial course and 11% for those taking two or more remedial courses. A second pattern is exemplified by Brooklyn. Here, students taking one remedial course have a somewhat higher attrition rate than those taking none. A third pattern is apparent at Lehman and York. At these schools attrition is essentially unrelated to whether the student takes remediation (the relatively small percentage differences can be discounted due to the small number of students involved).

For level A students, no clear patterns emerge. Rather, the picture is one of diversity. At Baruch attrition is unrelated to remediation, whereas at Brooklyn students who do not take remediation are less likely to drop out.

TABLE 4.4

First Semester Attrition in Relation to Remediation:
Senior Colleges

L E V E L B							
	No Remediation		1 Remediation		2 or More Rem.		
College	Dropout Rate	N	Dropout Rate	N	Rate	N	Total N
Baruch	40%	10	17%	35	11%	38	83
Brooklyn	16	92	22	50	-	-	142
City College	31	16	12	17	-	3	36
Hunter	27	22	15	13	-	4	39
Lehman	16	19	14	22	19	59	100
Queens	75	8	-	1	-	3	12
York	17	12	12	17	14	42	71

L E V E L A							
	No Remediation		1 Remediation		2 or More Rem.		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	10%	253	9%	303	8%	115	671
Brooklyn	7	751	13	118	-	2	871
City College	9	395	11	345	17	87	827
Hunter	14	430	21	337	12	92	859
Lehman	13	629	21	155	18	212	996
Queens	13	181	10	255	6	78	514
York	13	219	15	142	10	176	537

R E G U L A R							
	No Remediation		1 Remediation		2 or More Rem.		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	5%	218	7%	164	13%	23	405
Brooklyn	4	2773	20	15	-	-	2704
City College	6	1113	7	268	3	29	1410
Hunter	10	1307	15	293	8	60	1662
Lehman	9	750	10	49	16	50	849
Queens	4	1680	6	818	9	33	2531
York	18	68	16	25	4	23	116

On the other hand, at City College students who take no remediation or one remedial course are equally likely to drop out, but those who take two or more remedial courses exhibit a higher attrition rate.

The same diversity of findings is also apparent in the case of the regular students. Moreover, what was true for level A students at a given college is not necessarily true for regular students at that college. Thus, at Baruch and Lehman, students who take two or more remedial courses have a higher attrition rate than those who take one or none. The reverse holds for York. That is, those who take two or more remedial courses have a lower rate than those who take one or none. At Hunter students who take two remedial courses have about the same probability of attrition as students who take no remediation. However, both groups exhibit a lower attrition rate than the students who take one remedial course.

6. Attrition in Relation to Restricted Programs. It has been thought that a good device for easing students into the mainstream of college work is to restrict the number of credits which they attempt initially, especially in the case of students with weak academic preparation. The effects of such restricted programming on attrition are presented in Table 4.5.

For level B students, it does not appear that restricted programming decreases attrition. Indeed, the opposite is the case. The one exception to this trend is at Brooklyn where the attrition rate among students attempting 8 to 11 credits is about the same as those attempting 12 or more credits. In general, the number of cases is too small to permit any definitive analysis.

TABLE 4.5

First Semester Attrition in Relation to Credits Attempted:
Senior Colleges

LEVEL B

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	-	4	-	4	26%	19	11%	36	5%	20	83
Brooklyn	-	1	43%	7	30	27	12	42	14	65	142
City College	-	1	-	2	57	7	17	12	0	14	36
Hunter	-	2	-	4	33	6	10	10	0	17	39
Lehman	-	4	-	3	-	4	24	21	10	68	100
Queens	-	2	-	-	-	1	83	6	-	3	12
York	-	-	80	5	25	12	11	28	0	26	71

LEVEL A

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	5%	7	33%	15	16%	67	9%	226	6%	353	668
Brooklyn	-	2	57	7	44	27	12	138	5	697	871
City College	58	12	43	14	33	43	14	208	6	549	826
Hunter	77	26	71	58	35	71	19	197	8	504	856
Lehman	71	14	79	14	40	20	28	68	12	880	996
Queens	53	17	40	20	16	75	9	155	4	246	513
York	-	3	63	8	19	32	11	133	11	359	535

REGULAR

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Baruch	-	2	-	3	17%	18	11%	82	3%	299	404
Brooklyn	-	1	43%	7	26	19	12	113	3	2647	2787
City College	38%	8	69	16	30	33	12	169	4	1183	1409
Hunter	93	15	73	52	36	73	16	200	6	1314	1654
Lehman	-	1	83	6	-	4	25	24	8	814	849
Queens	67	15	32	31	20	106	10	436	3	1942	2530
York	-	-	-	2	33	6	9	11	12	97	116

For level A students, those who register for 12 or more credits have a lower attrition rate than those who register for less. York is the only exception, and in this case there is no difference between students taking 12 or more credits and students taking between 8 and 11 credits. For regular students the findings are the same, and York is again the exception. At this school, as with the York level A's, students taking 12 or more credits have about the same attrition rate as those students who register for between 8 and 11 credits.

Analyses of Attrition After Two Semesters: Senior Colleges

1. Second Semester Attrition by High School Average. Table 4.6 presents the data on second semester attrition. That is, it provides the attrition rates in the second semester for those students who returned for that semester. One can see a great deal of variability in the rates for level B students. The rate is lowest at City College (7%) and highest at Lehman (49%). The high rate at Queens is discounted due to the very small number of students involved. In short, a Lehman level B student is seven times more likely to drop out than a City College level B.

The variability among colleges is smaller for the level A students. City College and Hunter have the lowest rates (about 10%), while Lehman has the highest rates (25%).

Intercollege variability is even smaller for the regular students. At Hunter the rate is 8%, while at Lehman it is 13%.

Another way of looking at the attrition data is to compare level B, A, and regular students. The dominant pattern is the one we have observed before: the higher the high school average, the lower the attrition rate.

2 OF 2

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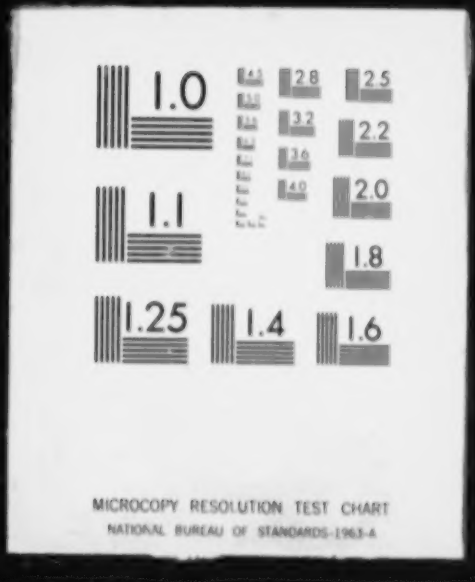

However, certain colleges depart from this pattern. At City College the attrition is lowest for the level B students, and the differences among levels are very small. Indeed, it might be said that at City College high school average is essentially unrelated to the probability of attrition. This is also true at York and Hunter. The two schools with the largest discrepancy in attrition rate between regular and level B students are Brooklyn and Lehman. At Brooklyn the level B's are almost four times as likely to drop out as the regulars. The same is true at Lehman.

TABLE 4.6

Second Semester Attrition Rates by High School Average
Senior Colleges

	LEVELS					
	B		A		Regular	
College	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts
Baruch	26%	18	18%	108	10%	38
Brooklyn	34	39	14	115	9	239
City College	7	2	11	84	9	118
Hunter	10	3	9	67	8	125
Lehman	49	41	23	208	13	97
Queens	-	2	14	64	9	217
York	13	8	14	66	11	11

2. Second Semester Attrition in Relation to Grade Point Average. The data are presented in Table 4.7. Inspection shows clearly that attrition rates are extremely sensitive to variation in the two semester cumulative grade point average. At York, level B students who earn less than a C average were twice as likely to drop out as those who earned a C or better.

TABLE 4.7

Second Semester Attrition in Relation to One Year Cumulative Grade Point Average: Senior Colleges

L E V E L B					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	10%	21	33%	48	69
Brooklyn	12	50	50	66	116
City College	-	4	8	24	28
Hunter	-	14	27	17	31
Lehman	8	12	56	71	83
Queens	50	4	-	-	4
York	9	34	19	27	61

L E V E L A					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	9%	287	27%	322	609
Brooklyn	9	485	23	319	804
City College	7	335	15	404	739
Hunter	9	388	14	230	718
Lehman	5	397	43	433	840
Queens	12	444	53	17	461
York	10	332	23	138	470

R E G U L A R					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	6%	291	24%	89	380
Brooklyn	7	2254	29	430	2684
City College	7	1036	17	286	1322
Hunter	7	1314	19	166	1480
Lehman	5	610	41	159	769
Queens	9	2366	60	15	2381
York	10	80	16	19	99

At Lehman, the former were seven times more likely to drop out.

For level A students the dropout rate among those who failed to attain a C average is lowest at Hunter and City College (14% and 15% respectively). It is highest at Lehman (43%) and Queens (53%). At City College, students who attained less than a 2.00 were about twice as likely to drop out than their counterparts who did earn a 2.00 or better. At Lehman they were about eight times as likely to drop out.

For regular students, the probability of attrition among students who did not attain a C average was lowest at York, City College, Brooklyn, and Hunter. The probability was highest at Lehman (the percentage is even higher at Queens but it is based on only 15 students). At Lehman and Baruch, students below a C average are four times more likely to drop out than students above this level. At York, the ratio is 1.6 to 1.

In summary, it appears that attrition is very sensitive to differences in grade point average. Moreover, it is noteworthy that among the students who attain less than a C average at the end of their first year, the attrition rates no longer are sensitive to differences in high school record. That is, regular students who fail to earn a C average are just as likely to drop out as level A students who fall below this level; indeed, at Queens, and Hunter the data suggest that regular students are slightly more likely to drop out than level A's if they fail to attain a 2.00 average.

3. Second Semester Attrition in Relation to Credit Generation. For level B students we again see that attrition rates are quite sensitive to credit earning performance. Leaving out Queens where the numbers are too small, we see from Table 4.8 that among students who earn less than 24 credits the attrition rate varies from a low of about 8% at Hunter and City College to a high of 56% at Lehman.

TABLE 4.8

Second Semester Attrition in Relation to One Year Cumulative Credits Earned: Senior Colleges

LEVEL B

College	24 or More Credits Dropout Rate	24 or More Credits N	Less Than 24 Credits Dropout Rate	Less Than 24 Credits N	No Credits Dropout Rate	No Credits N	Total N
Baruch	0%	13	30%	54	- %	2	69
Brooklyn	11	18	30	84	86	14	116
City College	0	4	9	23	-	1	28
Hunter	-	3	8	26	-	2	31
Lehman	7	15	56	64	-	4	83
Queens	-	1	67	3	-	-	4
York	7	15	13	45	100	1	61

LEVEL A

College	24 or More Credits Dropout Rate	24 or More Credits N	Less Than 24 Credits Dropout Rate	Less Than 24 Credits N	No Credits Dropout Rate	No Credits N	Total N
Baruch	4%	217	23%	376	81%	16	600
Brooklyn	6	409	22	388	71	7	804
City College	4	312	16	414	31	13	730
Hunter	5	237	10	464	41	17	718
Lehman	6	489	50	339	83	12	840
Queens	6	207	19	246	63	8	461
York	7	224	20	239	43	7	470

REGULAR

College	24 or More Credits Dropout Rate	24 or More Credits N	Less Than 24 Credits Dropout Rate	Less Than 24 Credits N	No Credits Dropout Rate	No Credits N	Total N
Baruch	5%	246	18%	130	-	4	380
Brooklyn	5	2256	27	422	50	6	2684
City College	6	946	15	369	57	7	1322
Hunter	4	1005	18	467	36	8	1480
Lehman	6	645	49	121	-	3	769
Queens	5	1752	19	621	75	8	2381
York	8	66	18	33	-	-	99

For level A students there is similar variability. At Hunter only 10% of the level A's who earned less than 24 credits dropped out. At this college they were twice as likely to drop out as their counterparts who earned at least 24 credits. On the other hand at Lehman the attrition rate was 50% among those who failed to earn 24 credits. Not only is this five times greater than the rate at Hunter, it is also more than eight times greater than the level A students at Lehman who did earn 24 or more credits.

For regular students, failure to earn 24 credits results in an attrition rate of 49% at Lehman, but only 15% at City College, followed closely by Baruch, Hunter and York with 18%.

4. Second Semester Attrition in Relation to Credit Ratio. Table 4.9 presents the data. The credit ratio also appears to be strongly associated with attrition. The strength of this association varies considerably from college to college. We note what now seems to be an emerging pattern: that failure to meet a minimal academic criterion such as a C average, or earning 24 credits, or attaining a credit ratio of .75 or better, has less drastic effects on attrition at City College and Hunter. On the other hand, the effects are very strong at Lehman.

Another noteworthy finding is that differences in attrition between level B, A, and regular students seem to have less impact than academic performance in college itself. Thus, while regular students have a lower dropout rate in general, when we introduce performance variables such as credit ratio, the situation turns itself around. For example, at Baruch, Lehman, and Queens, regular students with a credit ratio of less than .75 have a higher attrition rate than level A's with a low credit ratio.

TABLE 4.9

Second Semester Attrition in Relation to
One Year Cumulative Credit Ratio:
Senior Colleges

L E V E L B							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	9%	35	41%	32	--	2	69
Brooklyn	5	41	41	61	86%	14	116
City Coll.	-	12	13	15	--	1	28
Hunter	0	10	11	19	--	2	31
Lehman	16	32	68	47	--	4	83
Queens	--	3	--	1	--	-	4
York	8	36	17	24	--	1	61

L E V E L A							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	7%	426	39%	167	87%	15	608
Brooklyn	6	568	33	229	71	7	804
City Coll.	7	515	21	211	33	12	738
Hunter	6	483	13	218	43	14	715
Lehman	10	613	62	215	83	12	840
Queens	11	400	28	53	--	4	457
York	9	355	30	108	50	6	469

R E G U L A R							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Baruch	6%	344	44%	32	--	4	380
Brooklyn	7	2445	33	233	50%	6	2684
City Coll.	7	1163	24	152	50	6	1321
Hunter	6	1312	24	160	38	8	1480
Lehman	7	700	74	66	--	3	769
Queens	8	2291	35	82	67	6	2379
York	7	84	33	15	--	-	99

5. Dropout and Re-entry. Table 4.10 presents data pertaining to those students who dropped out after their first semester but who returned at the beginning of the fall 1971 semester. It can be seen that there is considerable institutional variability in return rates. Among level B students at Brooklyn, 8% of the dropouts re-entered. At the other extreme, 75% of the dropouts at Queens returned, and 40% of those at York returned. It should be noted here that the returns did not necessarily re-enter their original college. They may also have returned to some other CUNY campus.

Considerable institutional variability is also apparent for level A students. The rate was 11% at Baruch and 42% at York. Hunter also has a high return rate (40%), followed by Lehman (32%). Baruch and Brooklyn show the lowest return rates (28%) for regular students, while Hunter, Lehman, and York have the highest rates (all over 40%).

Comparisons of return rates by level reveals different patterns. At Brooklyn the rate is positively associated with high school average. That is, among level B's the return rate is 8%, among A's it is 19%, and among regulars 28%. Also conforming to this pattern are City College, Hunter and Lehman. On the other hand, at Baruch level B dropouts are more likely to return than level A's.

TABLE 4.10

Return Rate of First Semester Dropouts: Senior Colleges
(Percent Returning for Third Semester)

LEVEL B			
College	Number of Dropouts	Number of Returnees	Return Rate
Baruch	14	3	21%
Brooklyn	26	2	8
City College	8	1	13
Hunter	8	1	13
Lehman	17	2	12
Queens	8	6	75
York	10	4	40

LEVEL A			
College	Number of Dropouts	Number of Returnees	Return Rate
Baruch	62	7	11%
Brooklyn	67	13	19
City College	88	19	22
Hunter	141	56	40
Lehman	156	50	32
Queens	53	16	30
York	67	28	42

REGULAR			
College	Number of Dropouts	Number of Returnees	Return Rate
Baruch	25	7	28%
Brooklyn	104	29	28
City College	88	27	31
Hunter	182	77	42
Lehman	80	34	43
Queens	150	50	33
York	17	7	41

Analyses of Attrition After One Semester: Community Colleges

1. Attrition and High School Average. Table 4.11 indicates considerable institutional variation in attrition rates for level B students. At Kingsborough the rate is 14%, while at Staten Island it is 30%. In short, level B students are more than twice as likely to drop out at Staten Island as they are at Kingsborough.

Kingsborough also has the lowest dropout rate for level A's (9%), while Staten Island is again the highest (26%), followed by Manhattan (24%). Kingsborough is again lowest for regular students with an attrition rate of 9%. The highest rates are found at Manhattan and Queensborough (both 23%).

TABLE 4.11

First Semester Attrition Rates in Relation to High School Averages: Community Colleges

	LEVELS					
	B		A		Regular	
College	Dropout Rate	No. of Dropouts	Dropout Rate	No. of Dropouts	Dropout Rate	No. of Dropouts
Kingsborough	14%	89	9	59	9	38
Manhattan	24	60	24	68	23	80
NYCCC	16	86	15	79	11	66
Queensborough	28	217	20	199	23	239
Staten Island	30	112	26	141	16	116
CUNY COMMUNITY COL. AV.	22	564	18	546	17	539

2. Attrition and Credit Generation. For level B students we note a finding (Table 4.12) which we have not observed before: at Queensborough and Staten Island level B students who earn twelve or more credits are no less likely to drop out than their counterparts who earn less than twelve. There is also considerable variability in the extent to which attrition is sensitive to credit generation. Thus, at NYCCC only 8% of those who fail to earn twelve credits drop out. On the other hand at Manhattan this was true for 33% of those who earned less than twelve credits.

For level A students those who earned below twelve credits are always more likely to drop out. However, there is again considerable institutional variability. At NYCCC and Queensborough the attrition rate is 11% among this group. At Manhattan it is 28%.

Regular students who earn less than twelve credits always have a higher attrition rate than those who did earn twelve credits or more. There is again institutional variability, but it is not as great as for the level B and level A students. At NYCCC 13% of regulars who failed to earn twelve credits dropped out. Manhattan College is again the highest with a 23% attrition rate.

3. Attrition and Grade Point Average. Table 4.13 present the data. At Kingsborough 10% of the students who earned less than a C average dropped out compared with 52% of the level B students of Manhattan. We also note that at Kingsborough whether or not a student earns a 2.00 average seems unrelated to attrition rates. This is not true for any other school.

For level A students the attrition rate among those who failed to attain a C average is again lowest at Kingsborough (12%), while it is highest for Manhattan (44%). The data for regular students also fit this pattern. That is, at Kingsborough the attrition rate is lowest (15%) among those students below a C average, while it is highest (67%) at Manhattan. We also note that with the exception of Staten Island, level A students with less than a C average are less likely to drop out than the regular students who failed to attain a C.

TABLE 4.12

First Semester Attrition in Relation to Credits Earned: Community Colleges

LEVEL B

College	12 or More Credits Earned: Dropout Rate	12 or More Credits Earned: N	1-11 Credits Earned: Dropout Rate	1-11 Credits Earned: N	No Credits Earned: Dropout Rate	No Credits Earned: N	Total N
Kingsborough	5%	243	11%	351	66%	55	649
Manhattan	8	103	33	135	78	9	247
NYCCC	3	183	8	279	75	79	541
Queensborough	17	77	14	509	68	197	783
Staten Island	21	80	20	231	78	63	374

LEVEL A

College	12 or More Credits Earned: Dropout Rate	12 or More Credits Earned: N	1-11 Credits Earned: Dropout Rate	1-11 Credits Earned: N	No Credits Earned: Dropout Rate	No Credits Earned: N	Total N
Kingsborough	1%	347	15%	267	63%	24	638
Manhattan	16	141	28	132	82	11	284
NYCCC	2	237	11	228	76	66	531
Queensborough	7	179	11	629	66	181	989
Staten Island	13	164	21	313	71	73	550

REGULAR

College	12 or More Credits Earned: Dropout Rate	12 or More Credits Earned: N	1-11 Credits Earned: Dropout Rate	1-11 Credits Earned: N	No Credits Earned: Dropout Rate	No Credits Earned: N	Total N
Kingsborough	4%	322	17%	114	-	5	441
Manhattan	19	232	23	116	100%	8	356
NYCCC	2	364	13	191	79	43	498
Queensborough	4	372	18	522	82	162	1056
Staten Island	10	410	15	262	80	44	716

TABLE 4.13

First Semester Attrition in Relation to Grade Point Average:
Community Colleges

L E V E L B

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	9%	349	10%	249	69%	45	643
Manhattan	21	224	52	23	--	--	247
NYCCC	4	258	22	254	69	29	541
Queensborough	14	248	30	477	67	54	779
Staten Island	23	141	32	219	62	13	373

L E V E L A

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	6%	418	12%	202	56%	16	636
Manhattan	22	257	44	27	--	--	284
NYCCC	4	286	22	220	80	25	531
Queensborough	8	452	26	480	68	53	985
Staten Island	17	263	32	272	71	14	549

R E G U L A R

College	2.00 or Better		Less Than 2.00		No Grade Point Av.		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	7%	369	15%	68	--	4	441
Manhattan	21	341	67	15	--	-	356
NYCCC	3	435	29	148	79%	14	597
Queensborough	11	641	34	363	87	46	1050
Staten Island	12	496	25	213	71	7	716

4. First Semester Attrition in Relation to Credit Ratio. The data are presented in Table 4.14. The attrition rate seems very sensitive to credit ratios. That is, students with credit ratios below .75 are much more likely to drop out than those who achieve a .75 or better. However, there is great institutional variability on this index. Among level B students 9% of those below .75 at NYCCC drop out, whereas this is true for 46% of Kingsborough level B's and 41% at Manhattan.

The attrition rate is also very sensitive to credit ratio for level A students. At Queensborough, among students who achieve less than a .75 ratio, 14% drop out, while the figure is closer to 60% at Kingsborough and Manhattan (it should be noted however that very few students at the latter two colleges failed to earn a credit ratio of .75).

Among regular students there is less institutional variability in attrition among students who did not achieve a credit ratio of .75 or better. Among the three schools where there was a substantial number of such students (NYCCC, Queensborough, and Staten Island), the attrition rate is close to 20%. It is to be noted at both NYCCC and Queensborough the dropout rate among the regular students is slightly higher for the below .75 group than it is for the level A students. At Staten Island, the level A's below .75 exceed the regulars in attrition.

TABLE 4.14

First Semester Attrition in Relation to Credit Ratio:
Community Colleges

L E V E L B							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	8%	581	46%	13	--	4	598
Manhattan	20	216	41	22	78%	9	247
NYCCC	5	345	9	117	78	50	512
Queensborough	13	405	18	181	68	139	725
Staten Island	16	204	28	107	84	49	360

L E V E L A							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	7%	607	57%	7	100%	6	620
Manhattan	20	262	64	11	82	11	284
NYCCC	4	386	19	79	73	41	506
Queensborough	9	635	14	173	66	124	932
Staten Island	14	344	30	133	72	58	535

R E G U L A R							
	.75 or Better		Less Than .75		No Credit Ratio		
College	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	7%	432	--	4	--	1	437
Manhattan	21	337	18	11	100%	8	356
NYCCC	4	491	23	64	82	28	583
Queensborough	11	781	19	113	80	110	1004
Staten Island	11	575	20	97	81	37	709

5. First Semester Attrition in Relation to Remediation. The data are presented in Table 4.15. Among level B students at Kingsborough and NYCCC the finding is that those who take remedial work are more likely to drop out. At Queensborough there is no difference and at Staten Island those who take remediation are much less likely to drop out. Among those who took one remedial course, the attrition rate was 19%, while among those who took no remediation, it was more than twice this rate (39%). At Staten Island those students taking two or more remedial courses were somewhat more likely to drop out as compared with those who took one remedial course. Nevertheless, those taking two or more remedial courses were still less likely to drop out than those who took no remedial work.

Among level A students, the data for Staten Island again indicate that the remedial experience generates some holding power on students. Thirty-two percent of those taking no remediation dropped out, while the attrition rate for those taking one remedial course was 15%, and among those taking two or more remedial courses it was 22%. On the other hand, at NYCCC the relationship is reversed: students who take remediation are more likely to drop out. At Kingsborough the relationship of remediation to attrition is curvilinear. That is, among those taking no remediation, 8% drop out; among those taking one course, 11% drop out; while among those taking two or more remedial courses the attrition rate falls to 3%.

Among regular students the relationship between remediation and attrition is generally negative; i.e., students taking remediation have a higher attrition rate than those not taking it. This is not the case at Staten Island. At this institution attrition is essentially unrelated to the remedial experience.

TABLE 4.15

First Semester Attrition in Relation to Remediation:
Community Colleges

LEVEL B

College	No Remediation Dropout Rate	N	1 Remediation Dropout Rate	N	2 or More Rem. Dropout Rate	N	Total N
Kingsborough	10%	344	19%	288	--	17	649
Manhattan	24	246	--	1	--	--	247
NYCCC	13	275	18	44	19%	224	543
Queensborough	26	188	26	288	30	367	783
Staten Island	39	165	19	98	26	111	374

LEVEL A

College	No Remediation Dropout Rate	N	1 Remediation Dropout Rate	N	2 or More Rem. Dropout Rate	N	Total N
Kingsborough	8%	344	11%	259	3%	36	639
Manhattan	24	284	--	-	-	--	284
NYCCC	12	319	19	48	20	165	532
Queensborough	18	356	21	294	22	339	989
Staten Island	32	296	15	144	22	111	551

REGULAR

College	No Remediation Dropout Rate	N	1 Remediation Dropout Rate	N	2 or More Rem. Dropout Rate	N	Total N
Kingsborough	7%	329	11%	102	27%	11	442
Manhattan	22	354	--	2	--	--	356
NYCCC	7	443	17	48	16	108	599
Queensborough	17	572	27	285	33	199	1056
Staten Island	16	524	16	124	19	70	718

6. First Semester Attrition in Relation to Restricted Credit Load. The data are presented in Table 4.16. The general finding is that except for Manhattan, students who register for less than eight credits are the most likely to drop out. At Queensborough, Kingsborough and NYCCC students who attempt 8-11 credits have about the same attrition rate as those who attempt 12 or more credits. At Staten Island those who attempt 12 or more credits have a slightly higher attrition rate than those who attempt 8-11 or 4-7. This suggests that restricted program placement generates some retentive power at this campus. At Manhattan the more credits for which a student registers, the less likely is he to drop out.

The overall pattern for level A students is the one found for level B students only at Manhattan. The more credits for which a student registers, the less likely is he to drop out. Queensborough and Staten Island are exceptions. At the former there is no difference in attrition rates between the group registering for 8-11 credits and the group registering for 12 or more. At Staten Island those who registered for 12 or more had a higher attrition rate than their counterparts who attempt 8-11, and they have the same attrition rate as those who register for from 4-7 credits.

Among regular students at Staten Island, the 8-11 group and the 12 or more group have about the same attrition rate. The same is true in Manhattan and Kingsborough. At NYCCC and Queensborough, however, those students who attempted 12 or more credits have the lowest attrition rates.

In short, restricted program placement seems to have some beneficial effects on certain campuses.

TABLE 4.16

First Semester Attrition in Relation to Credits Attempted: Community Colleges

LEVEL B

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	63%	51	25%	87	9%	94	7%	172	6%	245	649
Manhattan	0	0	75	12	47	38	24	84	12	113	247
NYCCC	69	29	50	48	10	109	8	95	5	260	541
Queensborough	66	58	36	174	27	229	17	187	17	135	783
Staten Is.	57	14	55	20	26	47	25	135	30	158	374

LEVEL A

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	50%	18	50%	56	12%	67	6%	148	1%	349	638
Manhattan	0	0	78	9	44	32	25	94	16	149	284
NYCCC	80	25	46	39	27	83	10	92	3	292	531
Queensborough	67	57	36	121	26	247	10	311	9	253	989
Staten Is.	67	15	73	15	26	65	18	174	26	281	550

REGULAR

College	None Attempted		1-3 Credits		4-7 Credits		8-11 Credits		12/More Credits		Total N
	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	Dropout Rate	N	
Kingsborough	100%	4	60%	15	30%	20	6%	79	4%	323	441
Manhattan	0	0	86	7	52	23	18	80	20	246	356
NYCCC	73	15	43	28	26	55	12	85	5	415	598
Queensborough	85	52	55	88	34	185	20	301	6	430	1056
Staten Is.	71	7	46	11	36	47	12	157	14	494	716

Two Semester Attrition Analyses: Community Colleges

1. Attrition by High School Average. The data are presented in Table 4.17. In contrast to the first semester attrition rates, there seemed less institutional variability in attrition for the second semester. The expected pattern is a lower rate for level A's as compared with level B's and, in turn a lower rate for regulars in comparison with level A's. Kingsborough, NYCCC, Queensborough and Staten Island conform to this pattern, although the percentage differences are small in the latter two cases. At Manhattan there is no relation between categories of high school average and attrition.

TABLE 4.17

Second Semester Attrition Rates in Relation to High School Averages: Community Colleges

	LEVELS					
	B		A		Regular	
College	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts	Dropout Rate	Number of Dropouts
Kingsborough	25%	141	18%	104	13%	53
Manhattan	16	29	17	37	17	46
NYCCC	25	115	20	90	13	67
Queensborough	24	133	22	174	17	142
Staten Island	24	64	21	86	18	108

2. Second Semester Attrition in Relation to Cumulative Grade Point Average. The data are presented in Table 4.18. For level B students about 30% of those who earned less than a C average drop out. The same attrition rate characterizes level A and regular students. For the level B's there is not a great deal of institutional variation. Twenty-four percent of level B's at Manhattan drop out if they fail to earn a 2.00 average, while at NYCCC (34%) and Kingsborough (33%) the rate is higher.

For level A students the range in attrition rates is even smaller than it is for level B's, going from a low of 30% at Kingsborough and NYCCC to a high of 37% at Manhattan. Among regular students the range is slightly greater: 30% of NYCCC regular students drop out if they did not earn a C average, while the figure is 42% at Manhattan.

The effects of grade point average seemed to "cancel" the effects of the high school average categories. That is, a student's grades in college are more influential than his high school average in determining the liklihood of dropping out. For example, at Staten Island, among students earning less than a 2.00, the dropout rate for level B's is 32%; for level A's it is also 32%; and for regulars it is 34%. At Queensborough, students with a stronger high school background (the regulars) are more likely to drop out than the B's and A's, if they do not attain at least a C average. This is also true at Manhattan.

TABLE 4.18

Second Semester Attrition in Relation to One Year Cumulative Grade Point Average: Community Colleges

LEVEL B					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	19%	308	33%	252	560
Manhattan	13	150	24	37	187
NYCCC	14	191	34	266	457
Queensborough	9	146	29	420	566
Staten Island	9	89	32	173	262

LEVEL A					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	13%	411	30%	169	580
Manhattan	14	186	37	30	216
NYCCC	12	244	30	209	453
Queensborough	8	352	33	438	790
Staten Island	8	190	32	220	410

REGULAR					
	2.00 or Better		Less Than 2.00		
College	Dropout Rate	N	Dropout Rate	N	Total N
Kingsborough	10%	346	31%	58	404
Manhattan	15	257	42	19	276
NYCCC	8	414	30	119	533
Queensborough	8	565	38	252	817
Staten Island	11	430	34	172	602

3. Second Semester Attrition in Relation to Credit Generation. The data are presented in Table 4.19. Attrition rates are affected rather strongly by the credit earning ability of students. At Queensborough the rate for level B students who earn less than 24 credits is twice as high as it is for those who earn more than 24 credits. At Kingsborough those who earned less than 24 credits have an attrition rate almost five times higher than those who earn more than 24.

Among level A students at Manhattan those who earn less than 24 credits have the lowest attrition rate in this category among community colleges. Those at Kingsborough have the highest rate. At this school the attrition rate among those earning less than 24 credits is more than six times greater than the rate among those who earn more than 24.

Among regular students at Kingsborough, those who earn less than 24 credits are seven times as likely to drop out as those who earn more than 24 credits. The discrepancy is smallest among Staten Island students, where those who earn less than 24 credits are about 3.5 times as likely to drop out as those who earn more than 24.

4. Second Semester Attrition in Relation to Credit Ratio. The data are presented in Table 4.20. Attrition rates are rather strongly associated with credit ratio at all levels. Among the level B students 46% dropped out at NYCCC if their credit ratio was below .75. On the other hand, at Manhattan this was true for only 21%. At Staten Island the attrition rate among those earning less than .75 was almost five times higher than it was among those earning better than .75. At Manhattan those earning less than .75 were only about 1.5 times as likely to drop out.

TABLE 4.19

Second Semester Attrition in Relation to One Year Cumulative Credits Earned: Community Colleges

LEVEL B

College	24 or More Credits Dropout Rate	N	Less Than 24 Credits Dropout Rate	N	No Credits Dropout Rate	N	Total N
Kingsborough	7%	191	33%	354	87%	15	560
Manhattan	6	83	22	103	-	1	187
NYCCC	8	155	33	290	58	12	457
Queensborough	11	64	22	460	64	42	566
Staten Island	7	62	29	189	55	11	262

LEVEL A

College	24 or More Credits Dropout Rate	N	Less Than 24 Credits Dropout Rate	N	No Credits Dropout Rate	N	Total N
Kingsborough	5%	322	32%	250	100%	8	580
Manhattan	13	115	20	99	-	2	216
NYCCC	9	213	29	232	50	8	453
Queensborough	8	156	23	599	69	35	790
Staten Island	8	161	28	237	67	12	410

REGULAR

College	24 or More Credits Dropout Rate	N	Less Than 24 Credits Dropout Rate	N	No Credits Dropout Rate	N	Total N
Kingsborough	5%	301	36%	103	-	-	404
Manhattan	6	182	37	94	-	-	276
NYCCC	5	344	25	183	67	6	533
Queensborough	6	357	24	442	78	18	817
Staten Island	9	374	31	222	100	6	602

TABLE 4.20

Second Semester Attrition in Relation to
One Year Cumulative Credit Ratio:
Community Colleges

LEVEL B

College	.75 or Better Dropout Rate	.75 or Better N	Less Than .75 Dropout Rate	Less Than .75 N	No Credit Ratio Dropout Rate	No Credit Ratio N	Total N
Kingsborough	23%	540	-	5	-	-	545
Manhattan	14	162	21%	24	-	1	187
NYCCC	14	306	46	139	83%	6	451
Queensborough	10	305	34	219	64	39	563
Staten Island	9	140	41	111	60	10	261

LEVEL A

College	.75 or Better Dropout Rate	.75 or Better N	Less Than .75 Dropout Rate	Less Than .75 N	No Credit Ratio Dropout Rate	No Credit Ratio N	Total N
Kingsborough	16%	568	-	4	-	-	572
Manhattan	14	198	50%	16	-	2	216
NYCCC	15	358	39	87	57%	7	452
Queensborough	10	568	49	187	69	32	787
Staten Island	10	275	41	123	67	12	410

REGULAR

College	.75 or Better Dropout Rate	.75 or Better N	Less Than .75 Dropout Rate	Less Than .75 N	No Credit Ratio Dropout Rate	No Credit Ratio N	Total N
Kingsborough	13%	404	-	-	-	-	404
Manhattan	14	261	67%	15	-	-	276
NYCCC	9	460	34	67	-	5	532
Queensborough	11	692	47	107	77%	17	816
Staten Island	12	502	45	94	-	5	601

At Queensborough level A students who did not earn a .75 were five times more likely to drop out than their counterparts who did earn a credit ratio of .75 or better. At NYCCC the above .75's were more than 2.5 times less likely to drop out than were those students below .75.

Among regular students, those earning less than .75 are about four times more likely to drop out. This seems true for all of the community colleges

5. Dropout and Re-entry. The data are presented in Table 4.21. For level B students there is great institutional diversity in return rates. At NYCCC 10% of the first semester dropouts returned for their third term, while at Manhattan this was true for 60% of the students. In other words, a Manhattan dropout was six times more likely to return than a NYCCC dropout.

Among level A students the return rates vary from a low of 9% at NYCCC to a high of 59% at Queensborough. Queensborough students were almost seven times more likely to return than NYCCC students.

Among regular students 18% of the dropouts at NYCCC return. This compares with 58% at Manhattan.

At Manhattan dropouts at each level are equally likely to return. At Kingsborough level B's are more likely to return than level A's. At Queensborough level A's and regulars are equally likely to return. The same is true at Staten Island.

TABLE 4.21

Return Rate of First Semester Dropouts: Community Colleges
(Percent Returning for Third Semester)

LEVEL B			
College	Number of Dropouts	Number of Returnees	Return Rate
Kingsborough	89	23	26%
Manhattan	60	36	60
NYCCC	86	9	10
Queensborough	217	64	29
Staten Island	112	34	30

LEVEL A			
College	Number of Dropouts	Number of Returnees	Return Rate
Kingsborough	59	11	19%
Manhattan	68	40	59
NYCCC	79	7	9
Queensborough	199	68	34
Staten Island	116	52	45

REGULAR			
College	Number of Dropouts	Number of Returnees	Return Rate
Kingsborough	38	13	34%
Manhattan	80	46	58
NYCCC	66	12	18
Queensborough	239	82	34
Staten Island	116	50	43

CHAPTER 5

COMPARISONS OF 1970 AND 1971 COHORTS

CHAPTER 5

COMPARISONS of 1970 and 1971 COHORTS

Introduction

At this time we have one semester performance data for the cohort freshmen who entered in fall 1971. Thus, the first semester performance of the 1970 entering cohort may be compared with the first semester experience for the 1971 entering cohort. This means, of course, that we have no attrition or reenrollment analyses. Further, our inquiry into the effects of remediation can only be suggestive, since the real test for the consequences of remediation can come only after the student has been in college for longer than one term.

Four analyses follow. Three of them contrast the academic performances of the two cohorts. Level B, A and Regular students at each campus will be compared on their grade point averages, credit generation, and credit ratio performances for the falls of 1970 and 1971 respectively. Our last analysis looks into the immediate effects of remediation, and considers its implication for the most decisive of our measures of academic success: GPA.

1970 and 1971 Comparisons of Grade Point Average: Senior Colleges

Data for the individual colleges are presented in Table 5.0. They indicate no general trend. At Brooklyn, 37% of the 1970 level B students earned a 2.00 or better grade point average in their first semester, while only 29% of the 1971 cohort achieved this level (it must be noted, of course, that the 1971 results are based on only 7 students). Level A students at Brooklyn did not do as well in 1971 as they did in 1970. Level B students of the 1971 cohort also did not do as well as Hunter and Queens (again,

however, the number of students involved is very small at Hunter for the 1971 group and is very small at Queens for the 1970 group). At all other colleges both level B and A students showed improvement in 1971. This improvement was particularly dramatic at City College where 22% of level B's achieved a C average in 1970, compared with 49% who reached this level in 1971. In absolute terms only 28% of the 1971 level B's at Lehman attained a C average. However, this was more than twice the proportion reaching this level in 1970. The institution with the greatest percentage of level B students attaining a 2.00 average is Queens, where 75% of the 1971 cohort reached this level. This is partly because freshmen do not receive F's during their first year at this campus.

For level A students the greatest improvement is observed at City College and Lehman.

The improvement noted for level B and level A students is not as apparent for regular students. The performance of the latter is rather stable over the two years.

TABLE 5.0

Comparison of 1970 and 1971 Freshmen:
Percent Earning 2.00 or Better Grade Point Average

	LEVEL									
	B				A				Regular			
College	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	27%	83	42%	33	51%	669	55%	685	78%	405	79%	488
Brooklyn	37	142	29	7	59	870	52	257	80	2788	84	2316
City College	22	36	49	53	42	824	55	1107	77	1406	77	1038
Hunter	51	39	38	8	67	857	72	701	84	1662	87	1482
Lehman	13	98	28	51	41	993	53	927	74	848	80	889
Queens	83	12	75	59	89	512	91	228	97	2531	98	2181
York*	54	71	57	14	69	536	--	--	79	116	85	231

*Data for 1971 Level A students not included due to error in the computer tape transmitted to us.

1970 and 1971 Comparisons of Credit Generation: Senior Colleges

Table 5.1 presents the data for the individual colleges. As with GPA, there is no consistent pattern. For level B students we see a marked decrease in credit generation at Queens and York and some decrease at City College and Brooklyn. On the other hand, two schools, Baruch and Lehman, showed no decrease.

For level A students, the 1971 cohort did almost as well as the 1970 group at Queens, Hunter, and Brooklyn. The one school which showed the greatest decrease in credit production was City College (where the percentage earning twelve or more credits fell from 40% in 1970 to 26% in 1971). Among regular students, the decrease in credit productivity was greatest at City College (72% in 1970 against 53% in 1971).

TABLE 5.1

Comparison of 1970 and 1971 Freshmen:
Percent Earning 12 or More Credits in First Semester
(Senior Colleges)

	LEVELS											
	B				A				Regular			
College	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	15%	83	15%	33	36%	671	28%	685	66%	405	59%	488
Brooklyn	20	142	14	7	50	871	46	257	82	2788	81	2316
City College	14	36	6	54	40	827	26	1119	72	1410	53	1094
Hunter	15	39	13	8	35	859	32	701	68	1662	67	1482
Lehman	11	100	12	51	54	996	46	927	82	849	81	889
Queens	25	12	3	59	43	514	41	228	73	2531	74	2181
York	20	71	7	14	46	537	--	—	68	116	59	232

The decrease in credit generation for the 1971 freshmen should not be interpreted as an unplanned outcome. At some schools it seems that students were more likely to receive remediation and did, therefore, register for fewer credits. This can be seen in Table 5.2. The colleges at which the 1971

freshmen showed the greatest decrease in credit generation are also the colleges with the greatest increase in the proportions of 1971 freshmen taking remedial work. For example, at Queens (where there was a marked decrease in credit generation among level B's), the proportion taking one remedial course rose from 8% in 1970 to 76% in 1971. At York, the proportion rose from 24% to 43%. At City College, 94% of the level B students were placed in two or more remedial courses for the fall 1971 term.

TABLE 5.2

Percent Taking Remediation in First Semester:
Comparison of 1970 and 1971 Freshmen
(Senior Colleges)

L E V E L B

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	12%	10	3%	1	42%	35	33%	11	46%	38	64%	21
Brooklyn	65	92	71	5	35	50	29	2	--	--	--	--
City College	44	16	2	1	47	17	4	2	8	3	94	50
Hunter	56	22	13	1	33	13	--	--	10	4	88	7
Lehman	19	19	4	2	20	20	35	18	60	59	61	31
Queens	67	8	12	7	8	1	76	46	25	3	10	6
York	17	12	--	--	24	17	43	6	59	42	57	8

L E V E L A

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	38%	253	30%	206	45%	301	40%	276	17%	115	30%	203
Brooklyn	86	750	93	240	14	118	70	17	--	--	--	--
City College	48	392	13	147	42	345	24	262	11	87	63	698
Hunter	50	429	60	418	39	336	7	47	11	92	34	236
Lehman	63	628	46	424	15	153	31	287	21	212	23	216
Queens	35	180	43	99	50	254	46	105	15	78	11	24
York	41	219	--	--	27	142	--	--	33	176	--	--

R E G U L A R

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	54%	218	47%	231	41%	164	41%	199	6%	23	12%	58
Brooklyn	99	2773	100	2309	1	15	--	7	-	--	--	--
City College	79	1109	39	421	19	268	33	356	2	29	29	311
Hunter	79	1309	84	1247	18	293	3	51	4	60	12	184
Lehman	88	750	82	728	6	49	16	142	6	49	2	19
Queens	66	1680	80	1749	32	818	19	423	1	33	4	9
York	59	68	52	121	22	25	30	70	20	23	17	40

For level A students, the biggest decrease in credit generation was at City College. As Table 5.2 shows, 63% of level A's at City College took two or more remedial courses in 1971 (as compared with only 11% in 1970).

1970 and 1971 Comparisons: Effects of Remediation on First Semester GPA-Senior Colleges

The data are presented in Table 5.3. For level B students the data are rather thin due to the small numbers involved. Therefore, level B's are not analyzed. With regard to level A at Queens, those who received intensive remediation, did as well in both years as those who received no remedial work. At Hunter in 1970, the group that did best was the one that received no remediation. In 1971 the intensive remedial group did as well as the group receiving no remediation. In both cases, those who took only one remediation course did not do as well. At Baruch the remedial students do not do quite as well as the non-remedial students for the 1971 cohort. However, the performance of the 1971 remedial students compares more favorably with the non-remedials than was the case in 1970. In short, there is some evidence that intensive remediation was more beneficial in 1971 than it was in 1970. Only at City College and Lehman do the remedial students continue to perform at a considerably lower level than the non-remedial students.

For the regular students there are a few changes when the 1970 and 1971 cohorts are compared. At York the 1971 students who took remediation do considerably worse than those who took no remediation. This was not true for the 1970 cohort. At City College those who took remediation in 1971 do not perform as well as those who did not take remedial work. However, they do considerably better compared with their non-remedial counterparts than was the case for the 1970 cohort. Remedial students at Baruch in the 1971 cohort come closer to approximating the performance of non-remedial students than was the case in 1970.

TABLE 5.3

Relation of First Semester Grade Point Average and
First Semester Remediation:
Comparison of 1970 & 1971 Freshmen
Senior Colleges (% Earning 2.00 or Better)

LEVEL B

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	40%	10	--	1	20%	35	46%	11	29%	38	38%	21
Brooklyn	41	92	40%	5	30	50	--	2	--	--	--	--
City Coll.	25	16	--	1	18		--	2	--	--	48	50
Hunter	55	22	--	1	46	13	29	7	--	4	--	--
Lehman	5	19	--	2	15	20	22	18	15	59	32	31
Queens	100	8	71	7	--	1	78	46	33	3	50	6
York	58	12	--	-	53	17	50	6	53	42	63	8

LEVEL A

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	59%	253	59%	206	48%	301	55%	276	43%	115	51%	203
Brooklyn	60	750	52	240	57	118	53	17	50	2	--	--
City Coll.	46	392	69	147	40	345	51	262	35	87	53	698
Hunter	70	429	74	418	63	336	47	47	62	92	72	236
Lehman	47	628	63	424	29	153	45	287	29	212	43	216
Queens	91	180	94	99	87	254	87	105	91	78	96	24
York	72	219	--	--	62	142	--	--	70	176	--	--

REGULAR

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Baruch	81%	218	82%	231	76%	164	76%	199	70%	23	74%	58
Brooklyn	80	2775	85	2309	67	15	57	7	--	--	--	--
City Coll.	80	1109	83	421	66	268	77	356	55	29	70	311
Hunter	86	1309	88	1247	76	293	65	51	82	60	80	184
Lehman	75	750	81	728	69	49	75	142	65	49	63	19
Queens	98	1680	98	1749	95	818	97	423	94	33	100	9
York	79	68	53	121	76	25	30	70	83	23	17	40

1970 and 1971 Comparisons of Grade Point Average: Community Colleges

Except at two campuses, the community colleges show little difference between the 1970 and 1971 level B students regarding grade point average in the first semester. The data for the individual campuses are presented in Table 5.4. The findings indicate that at Manhattan there was a substantial decrease in the percentage of level B students earning a C or better average. In 1970, 91% of Manhattan level B's attained this level, while in 1971 the figure dropped to 79%. At Queensborough there was a slight increase. Thirty-two percent in 1970 and 38% in 1971 earned at least a C average. For the other colleges there was little change.

There was also little change between the 1970 and 1971 level A students, with only two campuses showing even a 6% difference. At Manhattan there was a decrease in the percentage of 1971 freshmen earning a 2.00 average (85% in 1971 compared with 91% in 1970). At Staten Island there was a 6% increase.

For regular students there was essentially no change in performance at Kingsborough and Manhattan. There were small increases at NYCCC and Staten Island. At Queensborough there was an 8 percentage point increase (69% of the 1971 freshmen earned a C average compared with 61% for the 1970 freshmen).

In short, some colleges have exhibited a small increase in the percentage of students earning a C average. However, such improvement does not approximate that observed for the senior colleges.

TABLE 5.4

Comparison of 1970 and 1971 Freshmen:
Percent Earning 2.00 or Better Grade Point Average
Community Colleges

Level	B				A				Regular			
College	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsborough	54%	643	50%	411	66%	637	69%	550	84%	442	83%	579
Manhattan	91	247	79	219	91	284	85	219	96	356	94	187
NYCCC	48	543	49	330	54	532	58	351	73	598	78	399
Queensborough	32	779	38	451	46	985	50	819	61	1050	69	1036
Staten Island	38	373	40	467	48	550	54	512	69	718	74	623

1970 and 1971 Comparisons of Credit Generation: Community Colleges

The data are presented in Table 5.5. For level B students, there is essentially no change from 1970 to 1971 in the proportion of students earning 12 or more credits. There is, however, considerable institutional variability. At Queensborough only 8% of level B's earned 12 or more credits in 1971, while at Manhattan 44% managed to earn at least 12 credits. These two colleges were also the top and bottom ranking institutions in 1970.

For level A students only at Manhattan does there seem to be a change. In 1970, 50% of level A's earned at least 12 credits, while this was true for 57% of the 1971 freshmen.

TABLE 5.5

Comparison of 1970 and 1971 Freshmen:
Percent Earning 12 or More Credits in First Semester
Community Colleges

Level	B				A				Regular			
College	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsborough	37%	649	36%	411	54%	639	56%	550	73%	442	66%	579
Manhattan	42	247	44	219	50	284	57	219	65	356	64	187
NYCCC	34	543	34	332	45	532	45	354	61	599	62	403
Queensborough	10	783	8	462	18	989	21	826	35	1056	39	1040
Staten Is.	21	374	19	467	30	551	28	512	57	718	44	623

For the regular students there was little change from 1970 to 1971 at Manhattan, NYCCC, and Queensborough. However at Kingsborough and Staten Island there was some decrease in the proportions of 1971 freshmen earning 12 or more credits. This decrease seems most pronounced at Staten Island where 57% of the 1970 freshmen earned 12 or more credits, whereas this was true for only 44% of the 1971 freshmen.

Apparently the stability of the community college students in credit generation is a reflection of the relative stability of these colleges in the assignment of students to remedial work (see Table 5.6).

TABLE 5.6

Percent Taking Remediation in First Semester:
Comparison of 1970 and 1971 Freshmen
Community Colleges

L E V E L B

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	53%	338	54%	207	45%	288	40%	195	3%	17	6%	9
Manhattan	100	246	96	211	--	1	40	8	--	--	--	--
NYCCC	53	275	57	188	9	44	20	67	38	224	23	75
Queensboro	24	188	18	83	29	227	29	130	47	364	53	238
Staten Is.	44	164	51	239	26	98	37	173	30	111	12	55

L E V E L A

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	54%	342	61%	380	41%	259	36%	163	6%	36	3%	7
Manhattan	100	284	97	213	--	--	2	5	--	--	1	1
NYCCC	61	319	66	231	11	48	17	59	29	165	17	61
Queensboro	36	356	42	343	30	294	26	216	34	335	32	260
Staten Is.	54	295	72	367	26	144	27	136	20	111	2	9

R E G U L A R

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	74%	329	73%	481	23%	102	25%	91	3%	11	2%	7
Manhattan	99	354	99	186	1	2	1	1	--	--	--	--
NYCCC	77	443	75	301	7	48	13	51	16	108	12	47
Queensboro	54	571	59	609	27	284	23	241	19	195	18	186
Staten Is.	73	524	79	492	17	124	21	128	10	70	--	3

1970 and 1971 Comparisons: Effects of Remediation on First Semester GPA-Community Colleges

For level B students there are some changes from 1970 to 1971 (See Table 5.7). At Staten Island in 1970, students taking intensive remediation (two or more courses) did as well as those who took no remedial work. In

TABLE 5.7

Relation of First Semester Grade Point Average and First Semester Remediation: Comparison Community Colleges (% Earning 2.00 or Better)

L E V E L B

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	58%	338	49%	223	50%	288	53%	165	47%	17	44%	23
Manhattan	91	246	79	211	--	1	75	8	--	--	--	--
NYCCC	53	275	50	188	50	44	49	67	41	224	45	75
Queensboro	27	188	39	83	34	227	38	139	33	364	38	238
Staten Is.	38	164	46	239	33	98	34	173	41	111	33	55

L E V E L A

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	68%	342	69%	333	61%	259	70%	198	69%	36	63%	19
Manhattan	91	284	85	213	--	--	80	5	--	--	--	1
NYCCC	58	319	62	231	58	48	41	59	46	165	57	61
Queensboro	46	356	53	343	48	294	48	216	44	335	47	260
Staten Is.	49	295	57	267	42	144	45	136	53	111	44	9

R E G U L A R

College	No Remediation				1 Remediation				2 or More Remediation			
	1970	N	1971	N	1970	N	1971	N	1970	N	1971	N
Kingsboro	85%	329	84%	422	82%	102	83%	143	73%	11	50%	14
Manhattan	96	354	94	186	--	2	--	1	--	--	--	--
NYCCC	77	443	82	301	62	48	68	51	60	108	62	47
Queensboro	68	571	75	609	54	284	64	241	50	195	57	186
Staten Is.	74	524	78	492	59	124	59	128	56	70	--	3

1971 those who took no remediation out-performed the remedial students. In this respect Staten Island seems to have lost some ground. At Queensborough in 1970, remedial students did slightly better than non-remedial students. In 1971 both groups performed at about the same level. At NYCCC in 1970, the non-remedials were better than those who took two or more remedial courses. In 1971 all groups performed at about the same level. At Manhattan there was little formal remediation provided (that is formal remedial courses did not exist. Rather other styles of remediation were offered such as tutoring). At Kingsborough in 1970, non-remedial students outperformed those who had remedial experience. In 1971 students who took one remedial course performed about the same as those who had no remedial work. Those who took intensive remediation were slightly lower than those who took one remedial course.

With regard to level A students at Staten Island in 1970, those who took intensive remediation did about as well as those who took none. In 1971 there was a decline in the performance of remedial students. Staten Island thus did not do as well in the second year of open admissions. At Queensborough there was relatively little change in the effect of remediation over the two year period. In both years, students in remedial work did about as well as those not taking remediation. If there was any change, it would be in the direction of a slight decrease in performance for the 1971 freshmen in remedial work. At NYCCC in 1970, students taking one remedial course did as well as those who took no remediation. Those taking two or more remedial courses were significantly poorer in performance than the two preceding groups. In 1971 one change was apparent: students in intensive remediation did almost as well as those who took no remediation.

However, those who took only one remedial course were significantly below those who took none. At Kingsborough intensive remedial students did as well as those taking no remediation in 1970. In 1971 students who took one remedial course did as well as those who took none, but the intensive remedial group had slipped very slightly.

We now consider the regular students at the community colleges. At Staten Island those who took remediation in 1970 did not do as well as those who took none. The same is true for the 1971 cohort. The same conclusion applies to Queensborough and NYCCC. At Kingsborough, students of the 1970 cohort who took one remedial course did as well as those who took no remediation. Those in intensive remediation were somewhat inferior in performance to the first two groups. In 1971 the results are the same except that the intensive remedial group seems to have deteriorated in performance.

CHAPTER 6

CONCLUSION

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This first interim report on academic outcomes of open admissions raises more questions than it answers. This is necessarily the case. Answers to the important questions must rely on other data bases. It seems to us that many of these questions can be subsumed under three general issues. After presenting these, we will describe the several data bases we shall use in formulating the interpretations.

First, there is the issue of differences within and among campuses. As we noted in our introduction, CUNY is a federated rather than centrally directed university. Rather than a monolithic CUNY form of open admissions implementation, strategies have varied from campus to campus. If true, one would expect considerable variation in the academic outcomes among campuses. As our data show, this is exactly the case. Moreover, a comparison of the 1970 and 1971 cohorts shows that on any <u>one</u> campus many of the groups exhibit dissimilar outcomes. The consequences for further data collection are obvious. First, interpretation of differences among campuses requires detailed description and analysis of different open admissions strategies. Second, interpretation of differences within campuses through time requires consideration of policy changes on each campus from year to year.

For example, one specific topic to be addressed in considering differences between and within colleges is remediation. This report simply describes differences in remedial outcomes among schools. In order to adequately assess the impact of remediation, however, more data are required on specific program

components at the various colleges. This requires interviews with key administrators and faculty.

In addition to these within and between college differences, a second issue, individual differences among students, must be considered. In this report the only pertinent measure has been high school average. Needless to say, to this must be added indices such as several socio-economic variables and other dimensions of academic skills.

As important, if not more important, all of the data in this analysis neglect to consider a third issue: how students are thinking and feeling as they move through the open admissions program. At least three types of questions are pertinent. First, what are the opinions of the open admissions students about the program? Secondly, what are the attitudes of the non-open admissions regular students? Finally, do students who matriculated prior to open admissions see any changes in their respective colleges since 1970, and if so, what are they?

In order to address these issues, we have been and are collecting several types of data:

1. We are interviewing key administrators and analyzing documents on 17 CUNY campuses in order to determine differences among campuses in open admissions implementation, and individual campus changes from year to year.
2. Interviews will be conducted with faculty involved in the planning and teaching of remedial work. The aim is to assess differences among schools in the structuring of remedial work and to determine the kinds of changes which have occurred since the inception of open admissions.
3. On one campus we have conducted more than one hundred intensive tape recorded interviews with students who were freshmen in the fall of 1970

or 1971. Some were open admissions (level A and level B) students and some were not. The aim here is to assess their perceptions as they moved through the open admissions structure which existed on this campus. We shall compare these perceptions with the official perceptions as these are revealed through our interviews with administrators and faculty.

4. On four campuses we have interviewed student leaders. These are upperclassmen. From these data we expect to acquire insights into the perceptions of influential students concerning the changes that open admissions has brought about on their campuses.
5. Student newspapers on every campus are being analyzed. We wish to determine how issues relating to open admissions have been publicly defined at each institution.
6. We have collected student data on socio-economic characteristics, standardized measures of academic skill levels, and high schools attended. These data will enrich our analyses of the sources of individual differences in academic performance. They will also make it possible to assess the extent to which performance is determined by characteristics of college environments as against individual characteristics.

To some extent a final evaluation of open admissions must wait until these students have finished school and started working. It is important to assess the impact of open admissions in facilitating social mobility. Toward this end, a comparison of the jobs held by students who never attended college, who attended but dropped out, and who graduated, will be conducted, pending proper funding.

It is our expectation that as the types of data referred to above are collected and analyzed, the meaning of the data presented in this report can be clarified, interpreted, and illuminated.

APPENDIX A

COMPARISON OF MAJOR RESEARCH ASSESSMENTS OF OPEN ADMISSIONS

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COMPARISON OF MAJOR RESEARCH ASSESSMENTS OF OPEN ADMISSIONS

Introduction

To date there have been two major research projects assessing the Open Admissions policy. The first is the evaluation conducted by the American Council on Education (hereafter referred to as the "ACE report"). This work was carried out under a contract between ACE and the Board of Higher Education. The primary focus was on the assessment of the first year of Open Admissions.

The second evaluation supported jointly by the City University and the Esso Education Foundation is being conducted by the authors. This study is longitudinal in nature. It is following the first three classes entering under Open Admissions over a period of several years. The aim is to analyze student academic outcomes, to describe the different styles with which each campus has implemented the policy (with particular emphasis on remedial programs), and to assess the effects of different types of implementation on student outcomes.

Since there are significant methodological differences between the two projects, and since these can lead to discrepancies in findings, it is important to consider these and to interpret any differences which might arise.

Both studies are concerned with important criteria of academic success, notably grade point averages and credit generation. Moreover, both studies use very similar categories for describing these outcomes. The ensuing discussion compares the findings for these success variables and provides interpretation of any existing differences.

Comparison of ACE and Lavin-Jacobson Findings

The major difference between the ACE study and the Lavin-Jacobson project, as far as GPA's and credit generation are concerned, lies in the data collection techniques. The ACE report gathered data from student self-reports. That is, the data on grades and credits were obtained from a questionnaire sent to a sample of CUNY students (from the 1970 freshman class), asking them to report their performance on these variables. The Lavin-Jacobson report obtained the same type of data from student transcripts (as these were transmitted to us on computer tapes sent by the registrars on each of the CUNY campuses). In short, the ACE utilizes student self-report data and the data in the present report are the official records of student performance.

With regard to GPA's, Table A provides a comparison of the two studies. The findings are quite clear. If one assumes that the data based on the official transcripts are accurate, the data based on student self-reports presented in the ACE study vastly over-estimate the attainments of students with respect to grades. The ACE report states that 25% of senior college open admissions students attain a B or better average. The present report finds this true for only 8% of the open admissions students. By the same token, the ACE study finds that 13% of the open admissions students reported a C- or less, while our study finds that 42% of these students were below this level. In short, we believe that the ACE study over-estimates grades (based on student self-reports) by approximately a factor of three for the senior colleges. The same conclusion holds for the community colleges.

TABLE A

Full Year Freshman Grades of CUNY Students
(In Percentages)
Comparison of ACE and Lavin-Jacobson Findings*

Grades

	B or Better				B-, C+, or C				C- or Less			
SENIOR	OA		Regular		OA		Regular		OA		Regular	
COLLEGES	ACE	L-J	ACE	L-J	ACE	L-J	ACE	L-J	ACE	L-J	ACE	L-J
Baruch	16	5	44	28	66	40	48	49	19	55	8	23
Brooklyn	24	5	51	28	76	53	47	56	0	42	1	16
City College	21	4	53	30	57	41	40	49	22	56	8	22
Hunter	30	13	62	36	65	54	33	53	5	33	5	11
John Jay	30	-	57	-	63	-	41	-	6	-	2	-
Lehman	14	5	51	23	59	40	42	56	28	56	7	21
Queens	38	15	70	40	56	81	30	60	6	4	0	1
York	35	13	36	17	59	56	56	64	6	31	8	19
TOTAL	25	8	58	32	63	50	39	55	13	42	3	13
COMMUNITY COLLEGES												
Bronx	23	-	28	-	65	-	57	-	13	-	15	-
Hostos	48	-	54	-	45	-	36	-	7	-	10	-
Kingsborough	22	7	40	27	70	56	54	58	8	37	5	14
Manhattan	52	23	63	46	43	60	34	47	5	17	4	7
NYCCC	22	7	38	30	59	41	56	47	19	52	6	22
Queensborough	14	3	33	16	64	33	61	53	22	63	7	31
Staten Island	26	4	38	23	57	37	51	48	17	58	11	29
TOTAL	24	7	40	26	61	44	53	51	15	49	8	24

* Lavin-Jacobson findings referred to as "L-J".

127

For regular students, the self-report data also are over-estimates, but the bias is not as severe as for the open admissions students.

With regard to credit generation for the first year of open admissions, the relevant comparisons are presented in Table B.

It is again clear for the case of the open admissions students, that the ACE data are over-estimating success in the generation of credits. However, the over-estimate is less drastic for credits than it is for grade point average.

TABLE B

Percentage of Freshmen Receiving More Than 24 Credits During 1970-71: Comparison of ACE and Lavin-Jacobson Findings*

SENIOR COLLEGES	Open Admissions		Regular	
	ACE	L-J	ACE	L-J
Baruch	58	35	78	65
Brooklyn	71	47	92	84
City	62	42	85	72
Hunter	45	33	76	68
John Jay	47	-	74	-
Lehman	54	56	88	84
Queens	51	46	84	74
York	67	45	73	67
TOTAL	55	43	84	76
COMMUNITY COLLEGES				
Bronx	44	-	46	-
Hostos	31	-	44	-
Kingsborough	63	46	70	74
Manhattan	61	49	74	66
NYCCC	54	41	59	65
Queensborough	35	17	48	45
Staten Island	51	34	66	63
TOTAL	50	34	60	60

* Lavin-Jacobson referred to in Table as "L-J"